



# **Service Manual**

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**Copy**

**CD 1230**

**CD 1240**

**CD 1250**

Version 1.0  
Date: 04-07-2006  
2GNSM060

# **Service Manual**

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**Copy**

**DC 2230**

**DC 2240**

**DC 2250**

Version 1.0  
Date: 04-07-2006  
2GNSM060

## **CAUTION**

DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

## **ATTENTION**

IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE. REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

**Revision history**

Revision	Date	Replaced pages	Remarks

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# Safety precautions


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This booklet provides safety warnings and precautions for our service personnel to ensure the safety of their customers, their machines as well as themselves during maintenance activities. Service personnel are advised to read this booklet carefully to familiarize themselves with the warnings and precautions described here before engaging in maintenance activities.

## Safety warnings and precautions

Various symbols are used to protect our service personnel and customers from physical danger and to prevent damage to their property. These symbols are described below:

 **DANGER:** High risk of serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **WARNING:** Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **CAUTION:** Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

### Symbols

The triangle (△) symbol indicates a warning including danger and caution. The specific point of attention is shown inside the symbol.



General warning.



Warning of risk of electric shock.



Warning of high temperature.

⊘ indicates a prohibited action. The specific prohibition is shown inside the symbol.



General prohibited action.



Disassembly prohibited.

● indicates that action is required. The specific action required is shown inside the symbol.



General action required.



Remove the power plug from the wall outlet.



Always ground the copier.

## 1. Installation Precautions

### WARNING

- Do not use a power supply with a voltage other than that specified. Avoid multiple connections to one outlet: they may cause fire or electric shock. When using an extension cable, always check that it is adequate for the rated current. ....
- Connect the ground wire to a suitable grounding point. Not grounding the copier may cause fire or electric shock. Connecting the earth wire to an object not approved for the purpose may cause explosion or electric shock. Never connect the ground cable to any of the following: gas pipes, lightning rods, ground cables for telephone lines and water pipes or faucets not approved by the proper authorities. ....



### CAUTION:

- Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury. ....
- Do not install the copier in a humid or dusty place. This may cause fire or electric shock. ....
- Do not install the copier near a radiator, heater, other heat source or near flammable material.



This may cause fire. ....



- Allow sufficient space around the copier to allow the ventilation grills to keep the machine as cool as possible. Insufficient ventilation may cause heat buildup and poor copying performance. ....



- Always handle the machine by the correct locations when moving it. ....
- Always use anti-toppling and locking devices on copiers so equipped. Failure to do this may cause the copier to move unexpectedly or topple, leading to injury. ....
- Avoid inhaling toner or developer excessively. Protect the eyes. If toner or developer is accidentally ingested, drink a lot of water to dilute it in the stomach and obtain medical attention immediately. If it gets into the eyes, rinse immediately with copious amounts of water and obtain medical attention. ....













- Advise customers that they must always follow the safety warnings and precautions in the copier's instruction handbook. ....







## 2.Precautions for Maintenance

### WARNING

- Always remove the power plug from the wall outlet before starting machine disassembly. .... 
- Always follow the procedures for maintenance described in the service manual and other related brochures. .... 
- Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits. .... 
- Always use parts having the correct specifications. .... 
- Always use the thermostat or thermal fuse specified in the service manual or other related brochure when replacing them. Using a piece of wire, for example, could lead to fire or other serious accident. .... 
- When the service manual or other serious brochure specifies a distance or gap for installation of a part, always use the correct scale and measure carefully. .... 
- Always check that the copier is correctly connected to an outlet with a ground connection. .... 
- Check that the power cable covering is free of damage. Check that the power plug is dust-free. If it is dirty, clean it to remove the risk of fire or electric shock. .... 
- Never attempt to disassemble the optical unit in machines using lasers. Leaking laser light may damage eyesight. .... 
- Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly. .... 

### CAUTION

- Wear safe clothing. If wearing loose clothing or accessories such as ties, make sure they are safely secured so they will not be caught in rotating sections. .... 
- Use utmost caution when working on a powered machine. Keep away from chains and belts. .... 
- Handle the fixing section with care to avoid burns as it can be extremely hot. .... 
- Check that the fixing unit thermistor, heat and press rollers are clean. Dirt on them can cause abnormally high temperatures. .... 

• Do not remove the ozone filter, if any, from the copier except for routine replacement. ....



• Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself. ....



• Do not route the power cable where it may be stood on or trapped. If necessary, protect it with a cable cover or other appropriate item. ....



• Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks. ....



• Remove toner completely from electronic components. ....



• Run wire harnesses carefully so that wires will not be trapped or damaged. ....



• After maintenance, always check that all the parts, screws, connectors and wires that were removed, have been refitted correctly. Special attention should be paid to any forgotten connector, trapped wire and missing screws. ....



• Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary. ....



• Handle greases and solvents with care by following the instructions below: ....



- Use only a small amount of solvent at a time, being careful not to spill. Wipe spills off completely.
- Ventilate the room well while using grease or solvents.
- Allow applied solvents to evaporate completely before refitting the covers or turning the power switch on.
- Always wash hands afterwards.

• Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc. ....



• Should smoke be seen coming from the copier, remove the power plug from the wall outlet immediately. ....



### 3.Miscellaneous

#### WARNING

• Never attempt to heat the drum or expose it to any organic solvents such as alcohol, other than the specified refiner; it may generate toxic gas. ....



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## INSTALLATION GUID

THE DOCUMENT PROCESSOR  
BUILT-IN FINISHER  
JOB SEPARATOR  
FAX System (M)  
Data Security Kit (C)

## 1-1-1 Specifications

Type .....	Desktop
Copying system .....	Indirect electrostatic system
Originals .....	Sheets, books and three-dimensional objects
	Maximum size: A3/Ledger
Original feed system .....	Fixed
Copy paper .....	Weight
	Cassette: 60 - 105 g/m <sup>2</sup>
	MP tray: 45 - 200 g/m <sup>2</sup>
	Types
	Cassette: Plain, Preprinted, Bond, Recycled, Rough, Letterhead, Color (Colour), Prepunched, High quality and Custom1 - 8
	MP tray: Plain, Transparency, Preprinted, Labels, Bond, Recycled, Vellum, Rough, Letterhead, Color (Colour), Prepunched, Envelope, Cardstock, Thick paper, High quality and Custom1 - 8
Copying sizes .....	Cassette: A3/Ledger - A5R/StatementR
	MP tray: A3/Ledger - A6R/StatementR
Magnification ratios .....	Manual mode: 25 - 400%, 1% increments
	Auto copy mode: fixed ratios
	Metric
	1:1 ± 1.0%, 1:4.00/1:2.00/1:1.41/1:1.22/1:1.15/1:0.86/1:0.81/1:0.70/1:0.50/1:0.25
	Inch
	1:1 ± 1.0%, 1:4.00/1:2.00/1:1.29/1:1.21/1:0.78/1:0.64/1:0.50/1:0.25
Copy speed .....	At 100% magnification in copy mode:
	<b>30 ppm model</b>
	A3/Ledger: 20 sheets/min.
	B4/Legal: 20 sheets/min.
	A4/Letter: 30 sheets/min.
	A4R/Letter R: 22 sheets/min.
	B5: 30 sheets/min.
	B5R: 20 sheets/min.
	A5R/Statement: 14 sheets/min.
	A6R: 16 sheets/min.
	<b>40 ppm model</b>
	A3/Ledger: 23 sheets/min.
	B4/Legal: 23 sheets/min.
	A4/Letter: 40 sheets/min.
	A4R/Letter R: 27 sheets/min.
	B5: 40 sheets/min.
	B5R: 22 sheets/min.
	A5R/Statement: 16 sheets/min.
	A6R: 18 sheets/min.
	<b>50 ppm model</b>
	A3/Ledger: 26 sheets/min.
	B4/Legal: 26 sheets/min.
	A4/Letter: 50 sheets/min.
	A4R/Letter R: 31 sheets/min.
	B5: 50 sheets/min.
	B5R: 24 sheets/min.
	A5R/Statement: 18 sheets/min.
	A6R: 18 sheets/min.
First copy time .....	3.9 s or less (30 ppm model)
	3.5 s or less (40/50 ppm model)
Warm-up time .....	30 s (room temperature 22°C/71.6°F, 60% RH)
	Recovery from sleep mode: 15 s (room temperature 22°C/71.6°F, 60% RH)
Paper feed system .....	Automatic feed
	Capacity:
	Cassette: 500 sheets (80 g/m <sup>2</sup> )
	Manual feed
	Capacity:
	MP tray: 200 sheets (80 g/m <sup>2</sup> )
Paper eject system .....	Output tray: 250 sheets (80 g/m <sup>2</sup> )

Multiple copying .....	1 - 999 sheets
Photoconductor .....	a-Si (drum diameter 40 mm)
Charging system .....	Single positive corona charging
Recording system .....	Semiconductor laser
Developing system .....	Dry, reverse developing (single component system)
	Developer: 1-component, magnetism toner
	Toner replenishing: automatic from a toner container
Transfer system .....	Transfer roller
Separation system .....	Separation electrode
Fusing system .....	Heat roller
	Heat source: halogen heaters
	Abnormally high temperature protection devices: thermostats
Charge erasing system .....	Exposure by cleaning lamp
Cleaning system .....	Cleaning blade and roller
Scanning system .....	Flat bed scanning by CCD image sensor
Memory .....	Standard 512 MB/Maximum 1024 MB
Hard disk .....	40 GB
Resolution .....	600 x 600 dpi
Light source .....	Inert gas lamp
Dimensions .....	599 (W) x 646 (D) x 745 (H) mm
	23 9/16" (W) x 25 7/16" (D) x 29 5/16" (H)
Weight .....	Approx. 85 kg/187 lbs
Floor requirements .....	1497 (W) x 646 (D) mm
	58 15/16" (W) x 25 7/16" (D)
Functions .....	Original size, Paper selection, Mixed sized originals, Original orientation, Collate/Offset mode, Staple/Punch mode, Output destination, Zoom mode, Combine mode, Margin/Centering mode, Border erase, Booklet from sheets, Duplex, Cover mode, Form overlay, Page numbering, Memo mode, Density adjustment, Selection of image quality, EcoPrint mode, Batch scanning, Auto image rotation, Inverted copying, Mirror image, Job finish notice, File name, Priority override, Multi-page forms, Repeat copy, Programmed copying, Registering shortcuts
Power source .....	120 V AC, 60 Hz, 12 A or less
	220 D 240 V AC, 50/60 Hz, 6.5 A or less
Options .....	Document processor, paper feeder, 3000-sheet paper feeder, 3000-sheet document finisher, document finisher, built-in finisher, job separator, key counter, fax kit, security kit, data backup kit and PDF upgrade kit

## Printer functions

Printing speed .....	Same as copying speed
First print time .....	Same as first copy time
Resolution .....	Fast 1200 mode/600 dpi/300 dpi
Applicable OS .....	Microsoft Windows 95 (OSR2)
	Microsoft Windows 98 (second edition)
	Microsoft Windows NT4.0 (service pack 5 or later)
	Microsoft Windows 2000 (service pack 2 or later)
	Microsoft Windows Me
	Microsoft Windows XP
	Microsoft Windows Server 2003
	Apple Macintosh OS 9.x
	Apple Macintosh OS X 10.x
Interface .....	Parallel: Bi-directional parallel (IEEE 1284 Nibble/ECP mode)
	High-speed USB (USB2.0)
	USB host interface
	Optional interface: 2 slots (KUIO-LV, RS-232C)
	Network interface: 10Base-T/100Base-TX
PDL .....	PRESCRIBE
Emulation .....	PCL6 (5e, XL), KPDL3, KC-GL, Line Printer, IBM Proprinter X24E, EPSON LQ-850, DIABLO 630
Font .....	Outline font: 80 fonts (PCL6)/136 fonts (KPDL3)
	Bitmap font: 1 font/79 fonts are processed by outline font.

Graphics .....	PREScribe+JPEG image command supported
	One-dimensional barcode: 45 types
	Two-dimensional barcode: PDF417 1 type
Connectivity .....	Plug & Play
	SNMP (printer MIB supported)

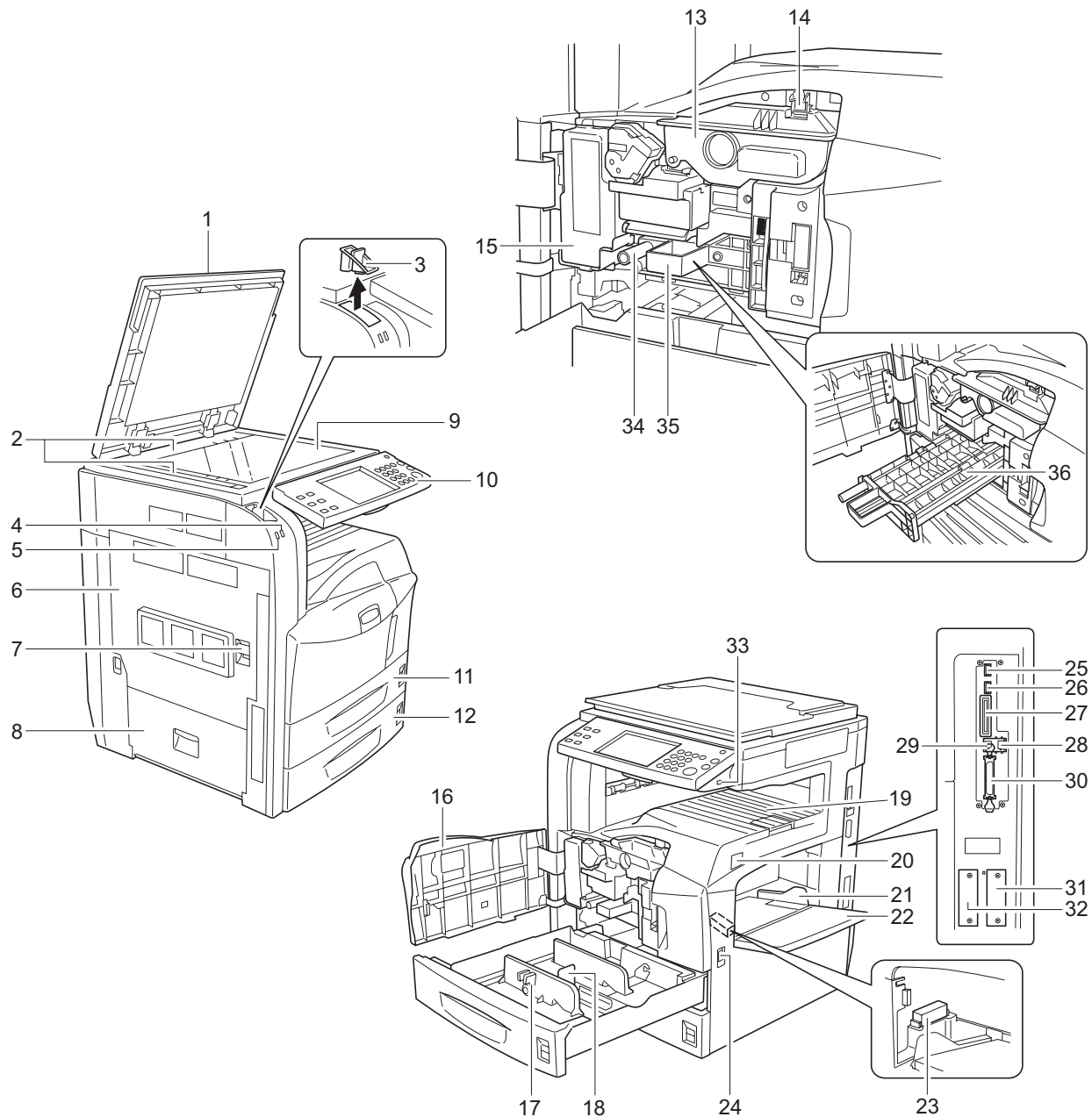
### Scanner functions

Ethernet .....	10BASE-T/100BASE-TX
Network Protocol .....	TCP/IP
Transmission system .....	PC transmission: SMB Scan to SMB, FTP Scan to FTP
	E-mail transmission: SMTP Scan to E-mail
	TWAIN scan: TWAIN source
Resolution.....	600 dpi, 400 dpi, 300 dpi, 200 dpi, 200 x 100 dpi, 200 x 400 dpi
File Format.....	Monochrome: TIFF (MMR), PDF (MMR)
	Gray: JPEG, PDF (JPEG)
	Color: JPEG, PDF (high compression)
Scanning Speed.....	1-sided: monochrome 50 sheets/min Color 25 sheets/min
	2-sided: monochrome 25 sheets/min Color 12.5 sheets/min

NOTE: These specifications are subject to change without notice.

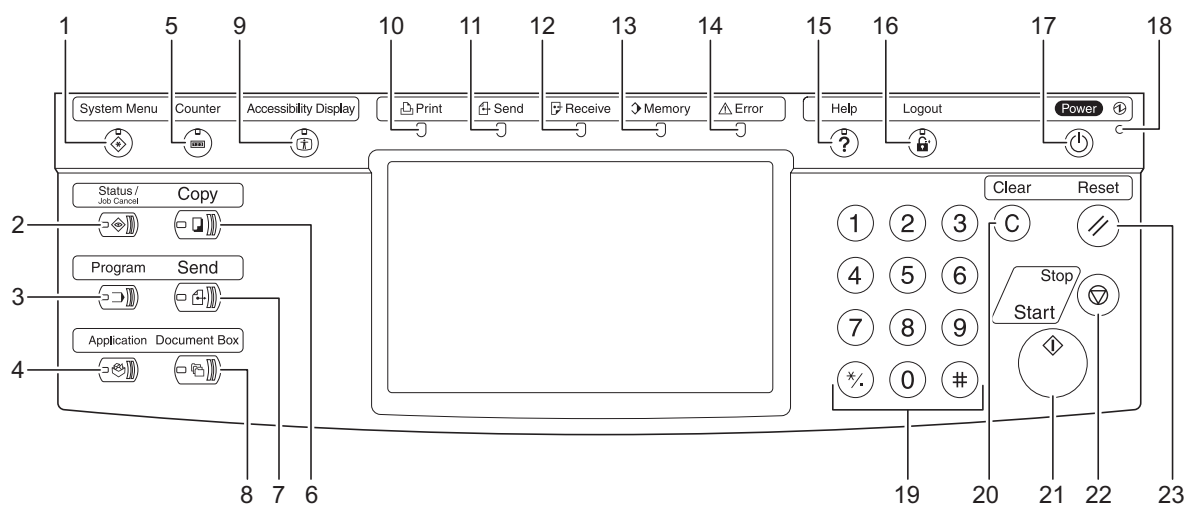
## 1-1-2 Parts names

### (1) Machine



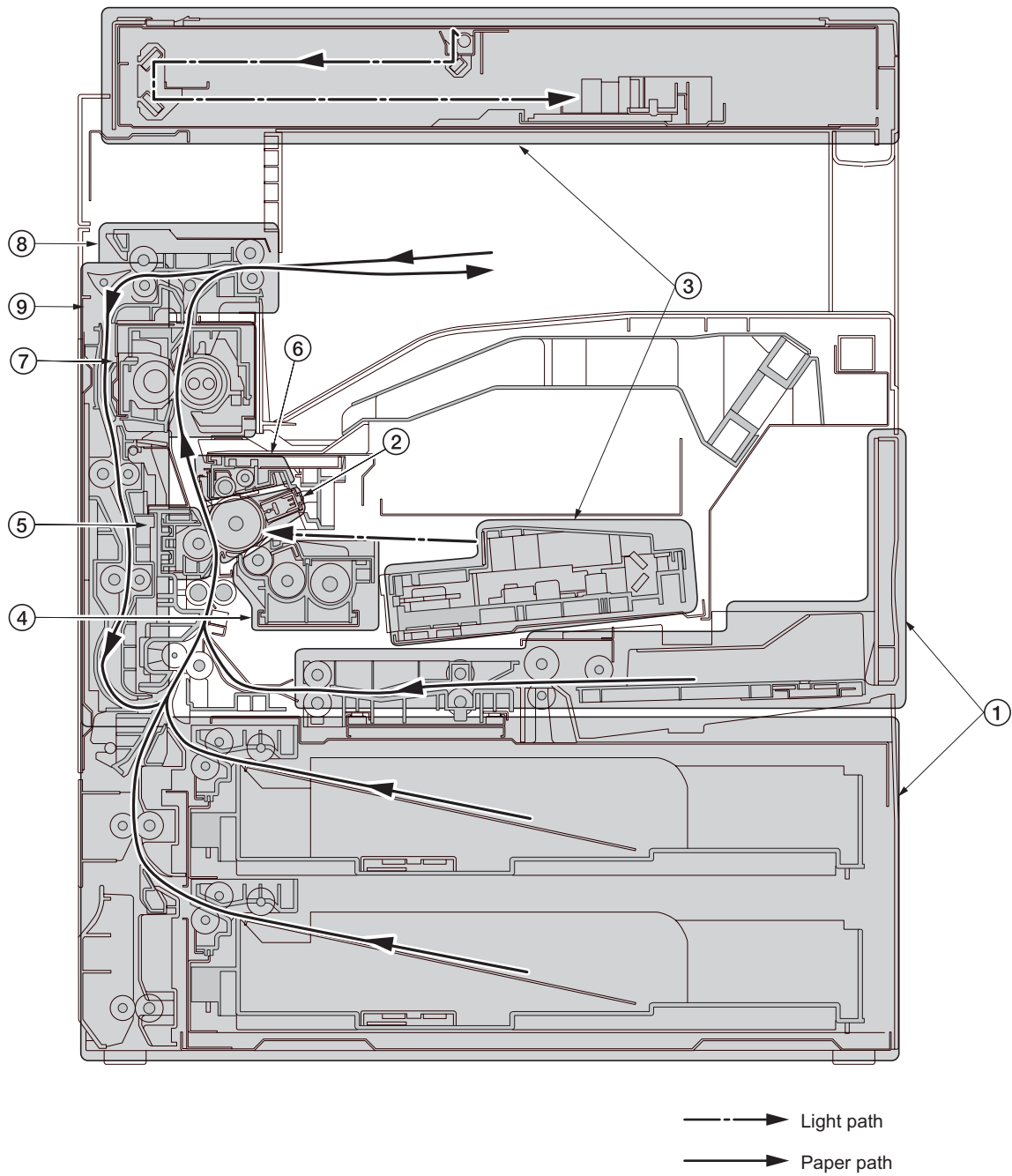
**Figure 1-1-1**

- |                                   |                               |                                  |
|-----------------------------------|-------------------------------|----------------------------------|
| 1. Original cover (Option)        | 13. Toner container           | 25. USB memory slot (A2)         |
| 2. Original size indicator plates | 14. Toner container stopper   | 26. USB memory slot (A3)         |
| 3. Clip holder                    | 15. Waste toner box           | 27. Memory card slot             |
| 4. Reception indicator            | 16. Front cover               | 28. Network interface connector  |
| 5. Error indicator                | 17. Paper width adjusting tab | 29. USB interface connector      |
| 6. Left cover 1                   | 18. Length adjustment plate   | 30. Parallel interface connector |
| 7. Left cover 1 Lever             | 19. Top tray                  | 31. Option interface slot (OPT1) |
| 8. Left cover 2                   | 20. Main power switch         | 32. Option interface slot (OPT2) |
| 9. Platen                         | 21. Paper width guides        | 33. USB memory slot (A1)         |
| 10. Operation panel               | 22. Multi purpose tray        | 34. Green knob (A1)              |
| 11. Cassette 1                    | 23. Memory card cover holder  | 35. Paper feed unit (A2)         |
| 12. Cassette 2                    | 24. Handles                   | 36. Paper feed unit cover (A2)   |

**(2) Operation panel****Figure 1-1-2**

- |                                    |                           |
|------------------------------------|---------------------------|
| 1. System menu key/indicator       | 13. Memory indicator      |
| 2. Status/Job cancel key/indicator | 14. Error indicator       |
| 3. Program key/indicator           | 15. Help key/indicator    |
| 4. Application key                 | 16. Log-out key/indicator |
| 5. Counter key/indicator           | 17. Power key             |
| 6. Copy key/indicator              | 18. Main power indicator  |
| 7. Send key/indicator              | 19. Numeric keys          |
| 8. Document box key/indicator      | 20. Clear key             |
| 9. Accessibility key/indicator     | 21. Start key/indicator   |
| 10. Print indicator                | 22. Stop key              |
| 11. Transmission indicator         | 23. Reset key             |
| 12. Reception indicator            |                           |

### 1-1-3 Machine cross section



**Figure 1-1-3 Machine cross section**

1. Paper feed section
2. Main charging section
3. Optical section
4. Developing section
5. Transfer and separation section
6. Cleaning and charge erasing section
7. Fuser section
8. Eject and switchback section
9. Duplex section

### 1-2-1 Installation environment

1. Temperature: 10 to 32.5°C/50 to 90.5°F
2. Humidity: 15 to 80%RH
3. Power supply: 120 V AC, 12 A or less  
220 to 240 V AC, 6.5 A or less
4. Power source frequency: 50 Hz  $\pm$  0.3%/60 Hz  $\pm$  0.3%
5. Installation location
 

Avoid direct sunlight or bright lighting. Ensure that the photoconductor will not be exposed to direct sunlight or other strong light when removing paper jams.

Avoid extremes of temperature and humidity, abrupt ambient temperature changes, and hot or cold air directed onto the machine.

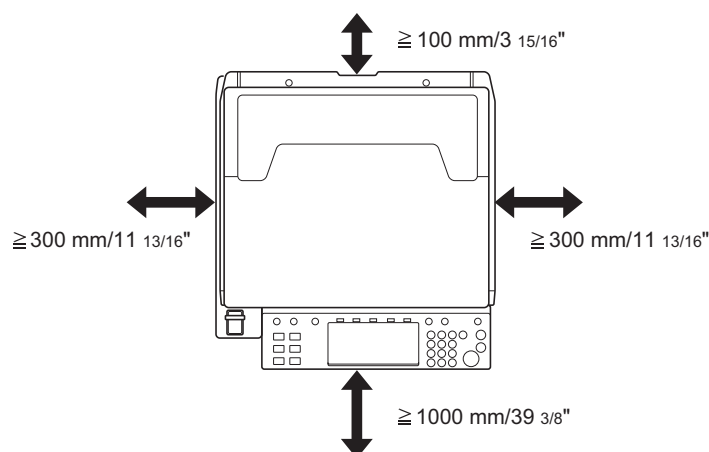
Avoid dust and vibration.

Choose a surface capable of supporting the weight of the machine.

Place the machine on a level surface (maximum allowance inclination: 1°).

Avoid air-borne substances that may adversely affect the machine or degrade the photoconductor, such as mercury, acidic or alkaline vapors, inorganic gasses, NOx, SOx gases and chlorine-based organic solvents.

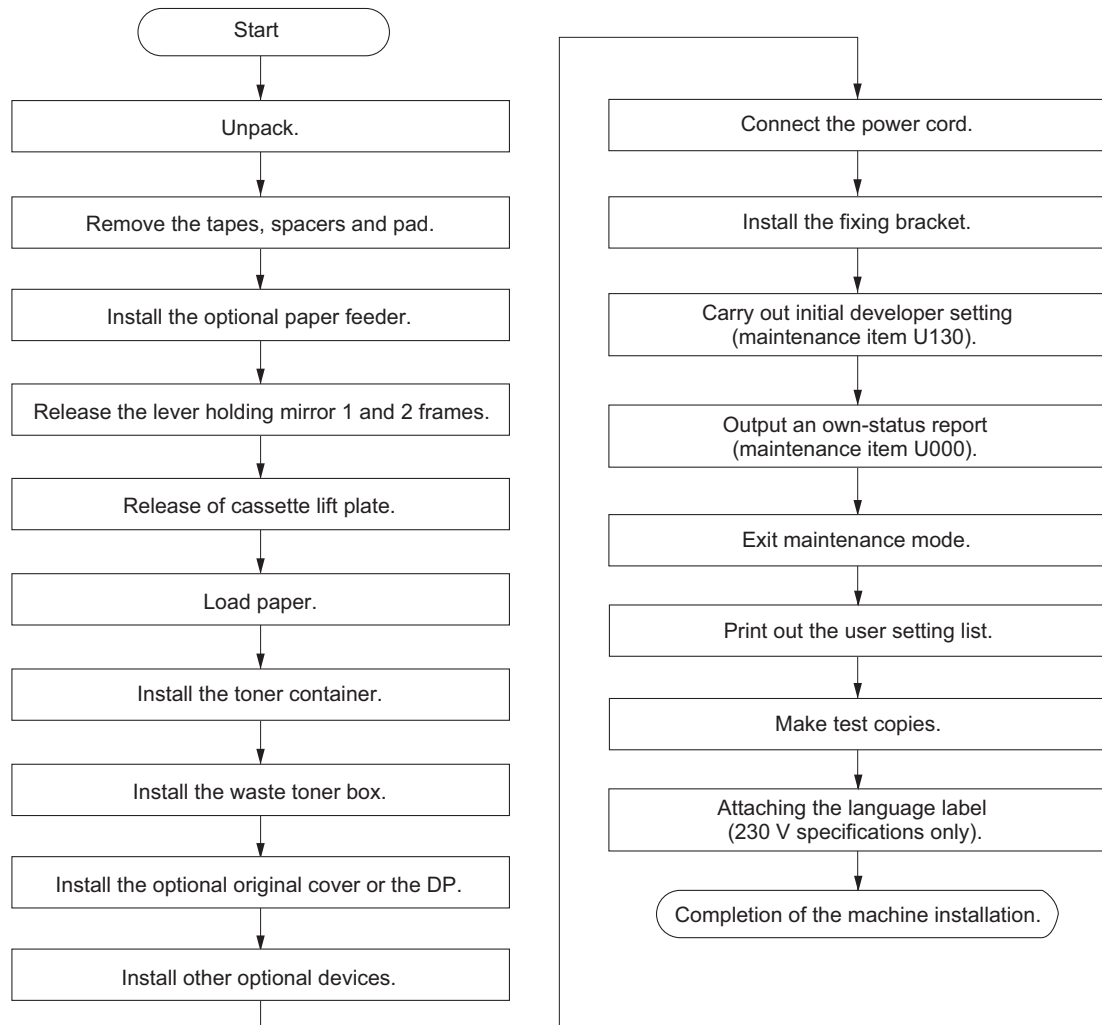
Select a room with good ventilation.
6. Allow sufficient access for proper operation and maintenance of the machine.  
Machine front: 1000 mm/39 3/8"    Machine rear: 100 mm/3 15/16"  
Machine right: 300 mm/11 13/16"    Machine left: 300 mm/11 13/16"



**Figure 1-2-1 Installation dimensions**

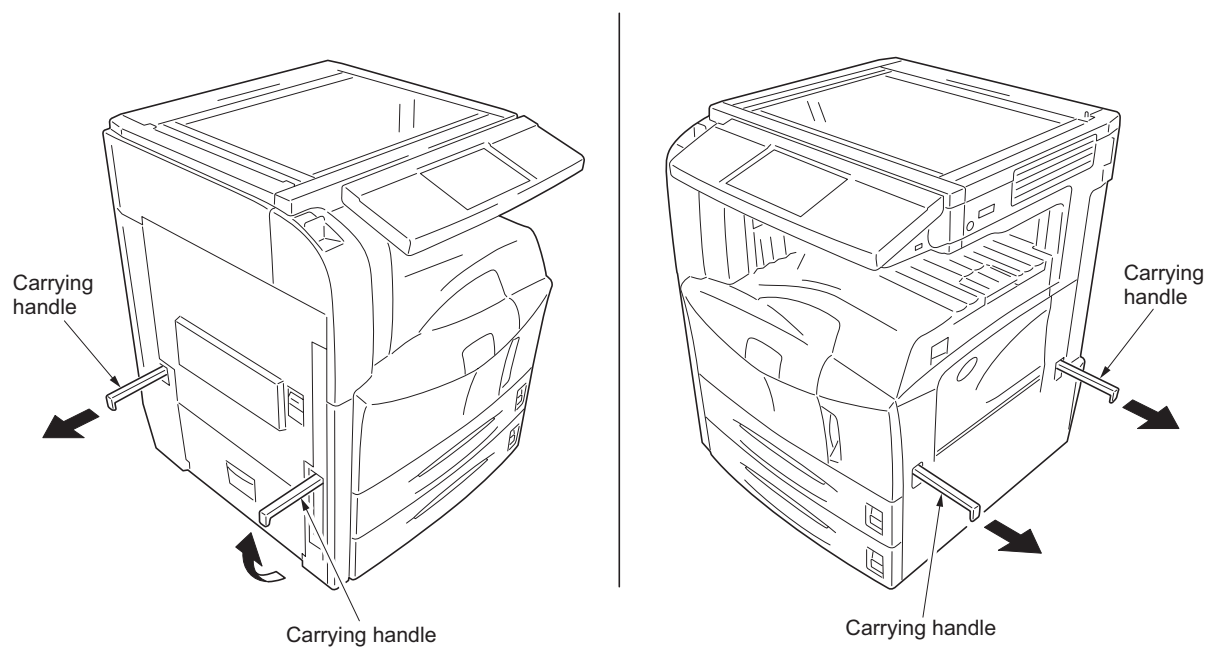
## 1-2-2 Unpacking and installation

### (1) Installation procedure



**Moving the machine**

When moving the machine, pull out the four carrying handles on the right and left sides and hold them.



**Figure 1-2-2**

## Unpacking.

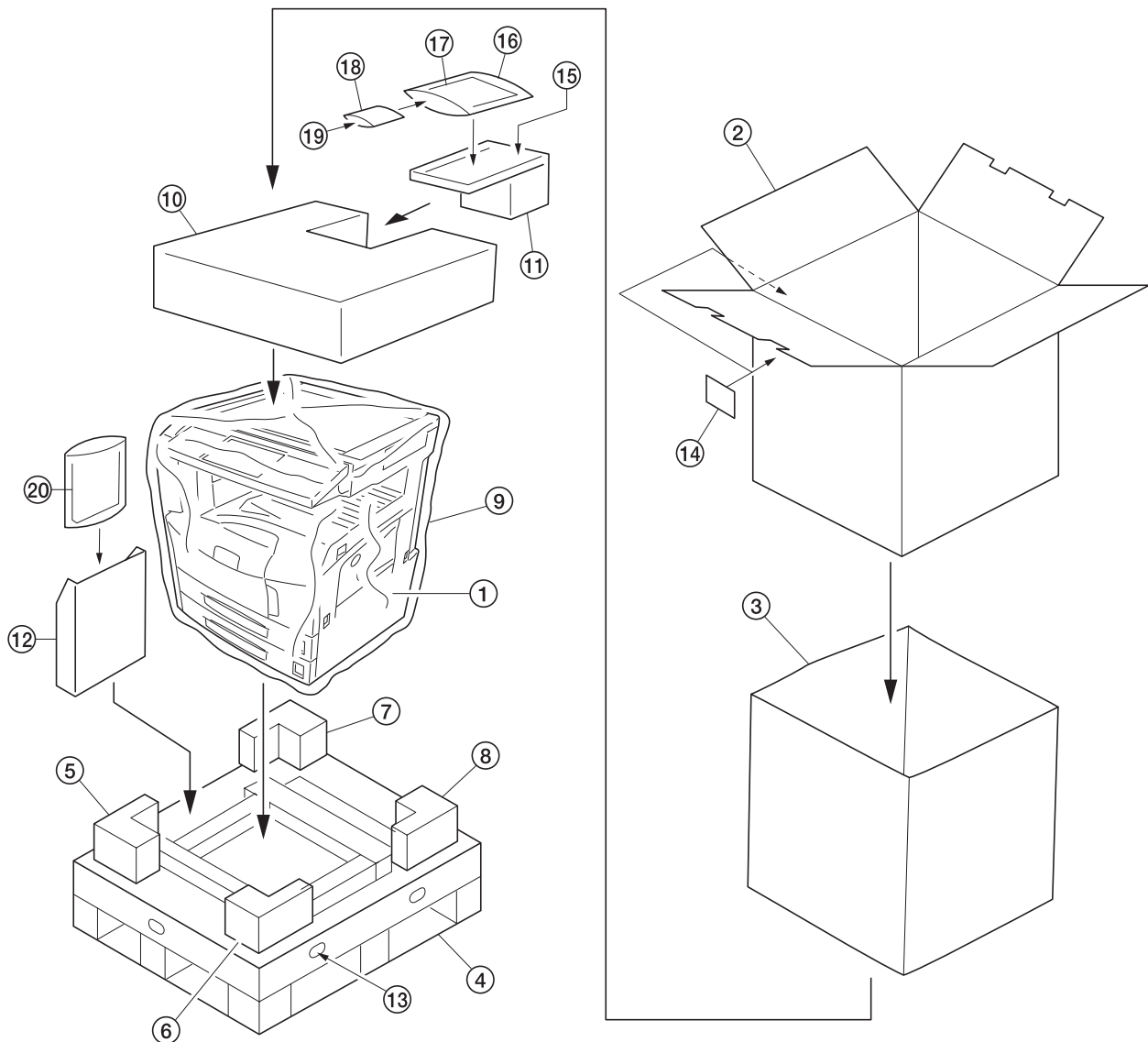


Figure 1-2-3 Unpacking

- |                           |                     |
|---------------------------|---------------------|
| 1. Machine                | 11. Spacer          |
| 2. Outer case             | 12. Document tray   |
| 3. Inner frame            | 13. Hinge joints    |
| 4. Skid                   | 14. Bar code labels |
| 5. Bottom front left pad  | 15. Power cord      |
| 6. Bottom front right pad | 16. Plastic bag     |
| 7. Bottom rear left pad   | 17. Leaflet         |
| 8. Bottom rear right pad  | 18. Plastic bag     |
| 9. Machine cover          | 19. M3 x 8 screws   |
| 10. Upper pad             | 20. Operation guide |

Caution: Place the machine on a level surface.

Remove the tapes, spacers and pad.

1. Remove two tapes.
2. Pull the lever and operation section is lowered.
3. Remove two spacers.  
Remove waste textile on the operation panel, if any.
4. Remove the pad.
5. Remove the tape holding the power cord.

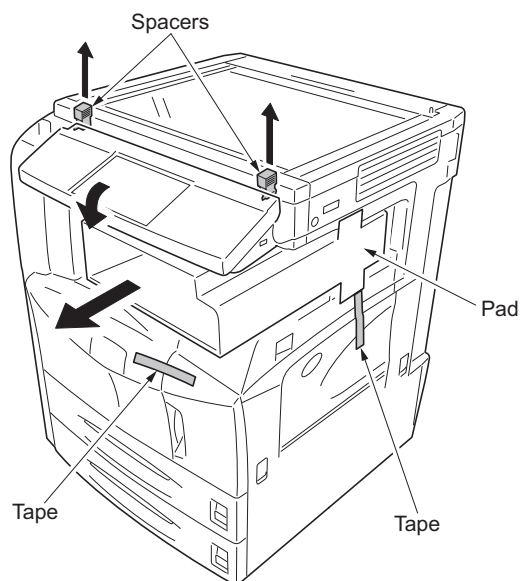


Figure 1-2-4

Install the optional paper feeder.

1. Install the optional paper feeder as necessary
2. Verify levelness at the four corners of the platen using a level gauge, and adjust the level bolts at the bottom of the machine to optimize levelness.

Release the lever holding mirror 1 and 2 frames.

1. Turn the lever of the machine rear side with the tool to release the lever holding the mirror 1 and 2 frames.

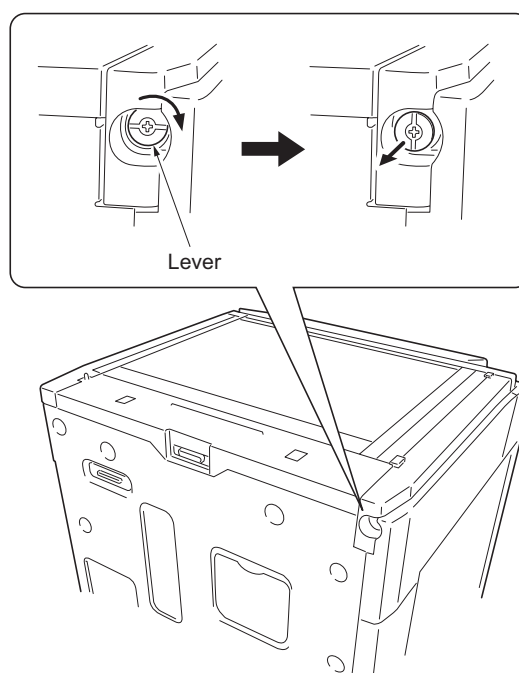
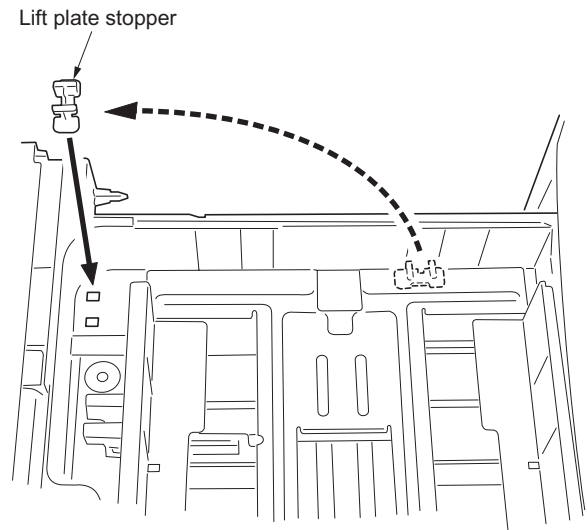


Figure 1-2-5

### Release of cassette lift plate.

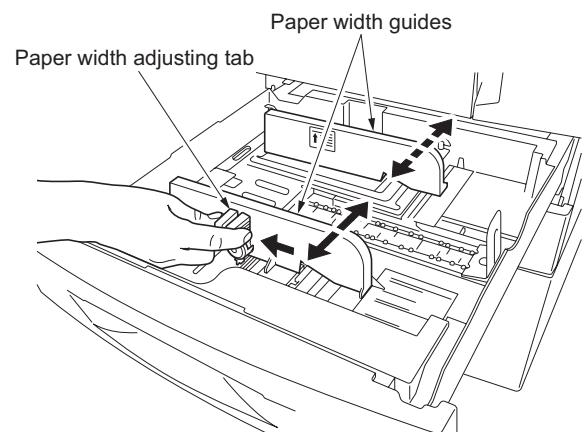
1. Pull cassette 1 and 2 out.  
Remove the lift plate stopper from each cassette and attach it to the storage location. When moving the machine, attach the lift plate in original position.



**Figure 1-2-6**

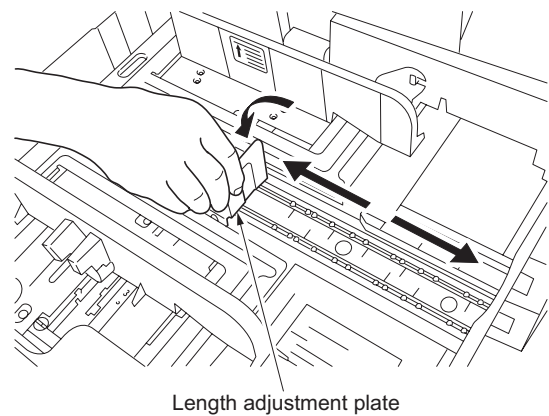
### Load paper.

1. Pull the cassette out.
2. Holding the paper width adjusting tab both ends, move the paper width guides to fit the paper.



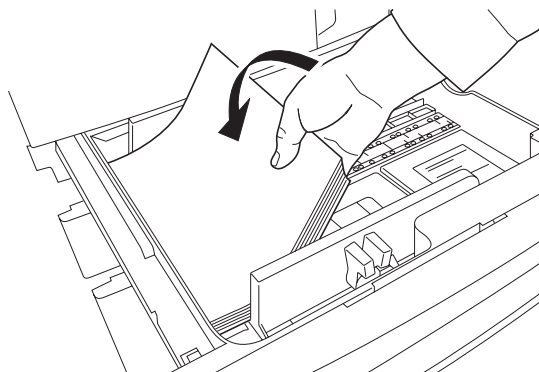
**Figure 1-2-7**

3. Adjust the length adjustment plate to fit the paper size.



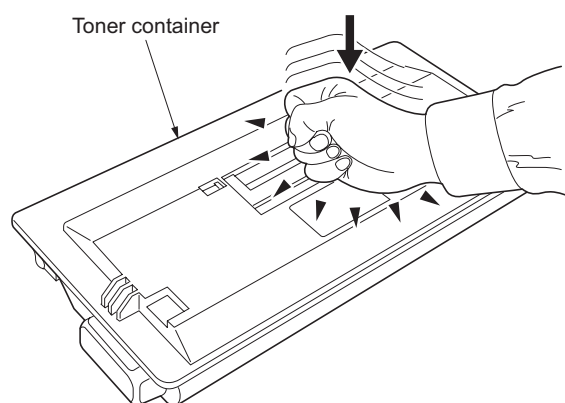
**Figure 1-2-8**

4. Align the paper flush against the left side of the cassette.

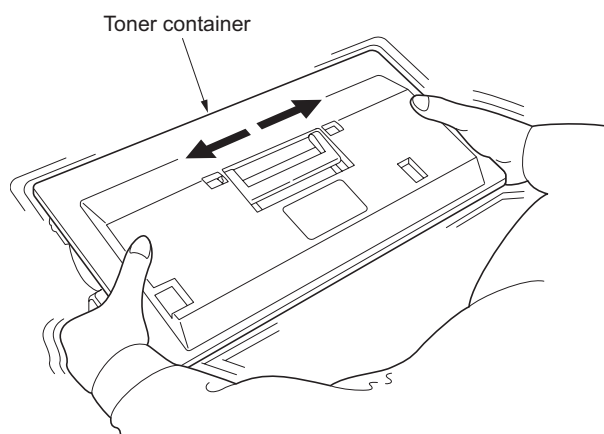
**Figure 1-2-9**

Install the toner container.

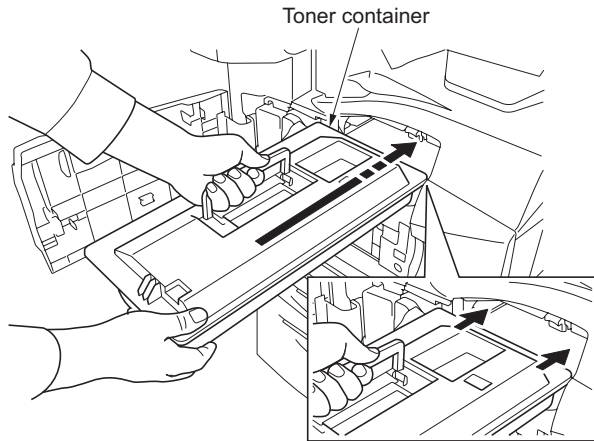
1. Open the front cover.
2. Tap the top of the toner container five to six times.

**Figure 1-2-10**

3. Shake the toner container approximately 10 times in the horizontal direction to stir toner.

**Figure 1-2-11**

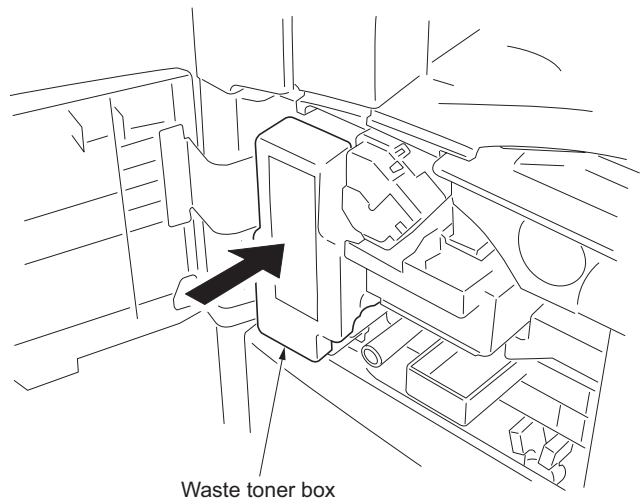
4. Gently push the toner container into the machine along the rails. Push the container all the way into the machine until it locks in place.



**Figure 1-2-12**

**Install the waste toner box.**

1. Install the waste toner box in the machine.
2. Close the front cover.



**Figure 1-2-13**

**Install the optional original cover or the DP.**

1. Install the optional original cover or DP.

**Install other optional devices.**

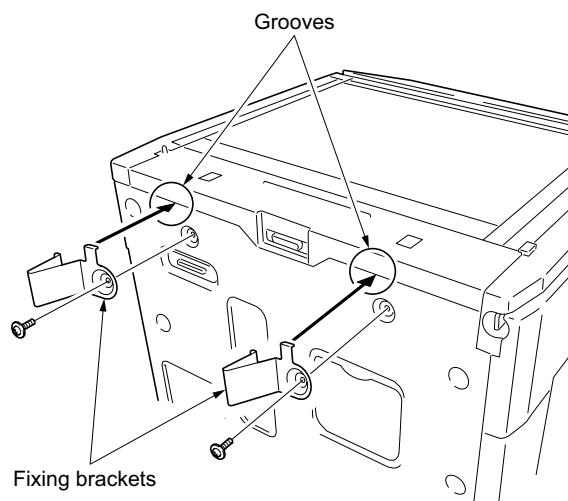
1. Install the optional devices (job separator, built-in finisher, document finisher and/or fax kit etc.) as necessary.

**Connect the power cord.**

1. Connect the power cord to the connector on the machine.
2. Insert the power plug into the wall outlet.

### Install the fixing brackets.

1. Remove two screws from the rear cover.
2. Hook the catch of fixing bracket onto the groove of round frame, and secure it using two screws removed before step.



**Figure 1-2-14**

### Carry out initial developer setting (maintenance item U130).

1. Turn the main power switch on and press the status key.
2. Enter the maintenance mode by entering 10871087 using the numeric keys.
3. Enter 130 using the numeric keys and press the start key.
4. Press the start key to execute the maintenance item. The drive stops within approximately 5 minutes.
5. Press the stop key.

### Output an own-status report (maintenance item U000).

1. Enter 000 using the numeric keys and press the start key.
2. Select MAINTENANCE and press the start key to output a list of the current settings of the maintenance items.
3. Press the stop key.

### Exit maintenance mode.

1. Enter 001 using the numeric keys and press the start key. The machine exits the maintenance mode.

### Print out the user setting list.

1. Select [Report Print] to output the user various setting reports.

### Make test copies.

1. Place an original and make test copies.

### Attaching the language label (230 V specifications only).

1. According to need, attach the correspond language label.

### Completion of the machine installation.

**(2) Setting initial copy modes**

Factory settings are as follows:

Maintenance item No.	Contents	Factory setting
U253	Switching between double and single counts	Double count
U260	Selecting the timing for copy counting	After ejection
U285	Setting service status page	ON
U326	Setting the black line cleaning indication	ON
U328	Side ejection setting	OFF
U342	Setting the ejection restriction	ON
U343	Switching between duplex/simplex copy mode	OFF

### 1-2-3 Installing the key counter (option)

#### Key counter installation requires the following parts:

Key counter (P/N 82142540)

Key counter set (P/N 302A369705)

#### Supplied parts of key counter set:

Key counter cover (P/N 2A360010)

Key counter retainer (P/N 66060030)

Key counter cover retainer (P/N 66060022)

Key counter mount (P/N 66060040)

Key counter socket assembly (P/N 41529210)

Two (2) M3 x 6 bronze flat-head screws (P/N B2303060)

One (1) M4 x 30 tap-tight S screw (P/N B1B54300)

Four (4) M4 x 6 bronze TP screws (P/N B4304060)

Two (2) M4 x 10 bronze TP screws (P/N B4304100)

One (1) M3 x 8 bronze binding screw (P/N B1303080)

One (1) M4 x 6 chrome TP screw (P/N B4104060)

One (1) M4 x 20 tap-tight S screw (P/N 7BB100420H)

One (1) M3 bronze nut (P/N C2303000)

Two (2) M4 x 10 tap-tight screws (P/N B3024100)

Two (2) M4 x 10 tap-tight P screws (P/N B8014100)

#### Procedure

1. Press the Power key on the operation panel to off. Make sure that the Power indicator and the Memory indicator are off before turning off the main power switch. And then unplug the power cable from the wall outlet.
2. Fit the key counter socket assembly to the key counter retainer using the two screws and nut.
3. Fit the key counter mount to the key counter cover using the two screws, and attach the key counter retainer to the mount using the two screws.

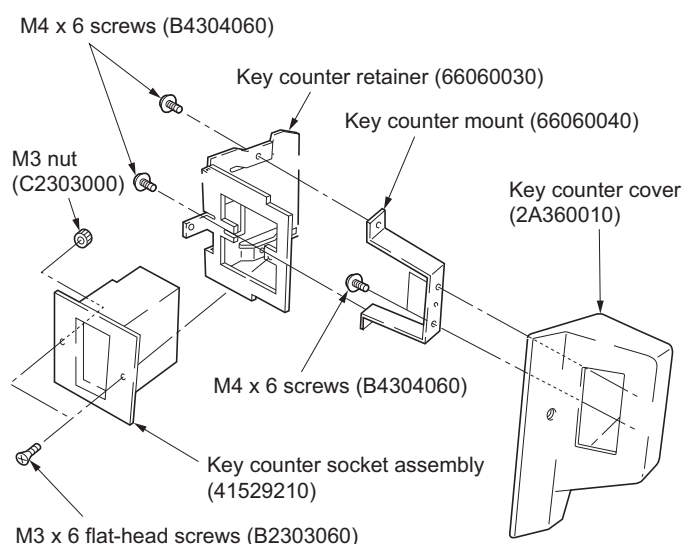


Figure 1-2-15

4. Remove the scanner right cover and the upper right cover.
5. Cut out the aperture plate on the upper right cover using nippers.
6. Pass the connect inside the machine through the aperture and refit the upper right cover and scanner right cover.

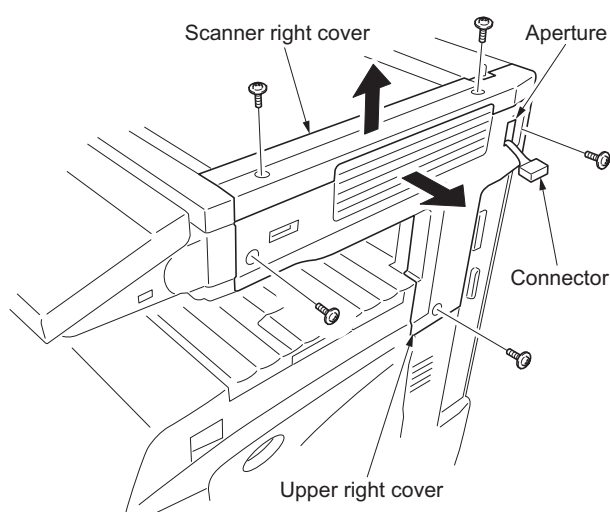
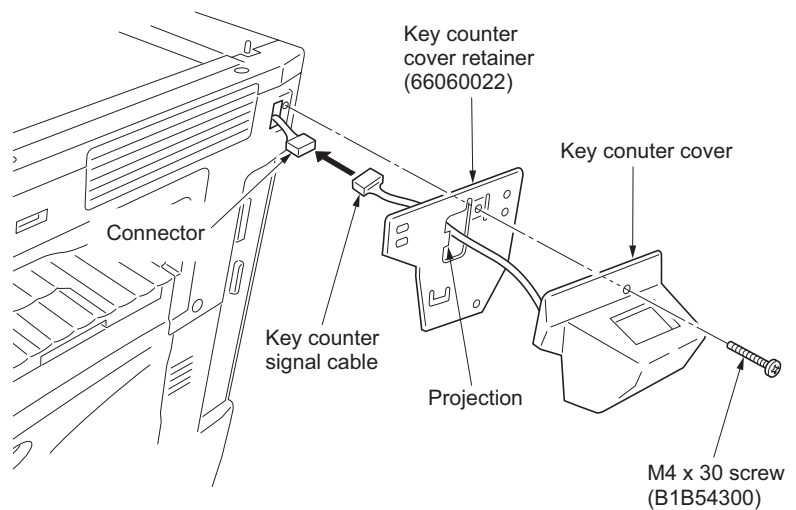


Figure 1-2-16

7. Pass the key counter signal cable through the aperture in the key counter cover retainer, and insert into the connector of the machine.
8. Seat the projection of the key counter cover retainer in the aperture in the upper right cover.
9. Fit the key counter cover with the key counter socket assembly inserted to the key counter cover retainer on the machine using the screw.
10. Insert the key counter into the key counter socket assembly.



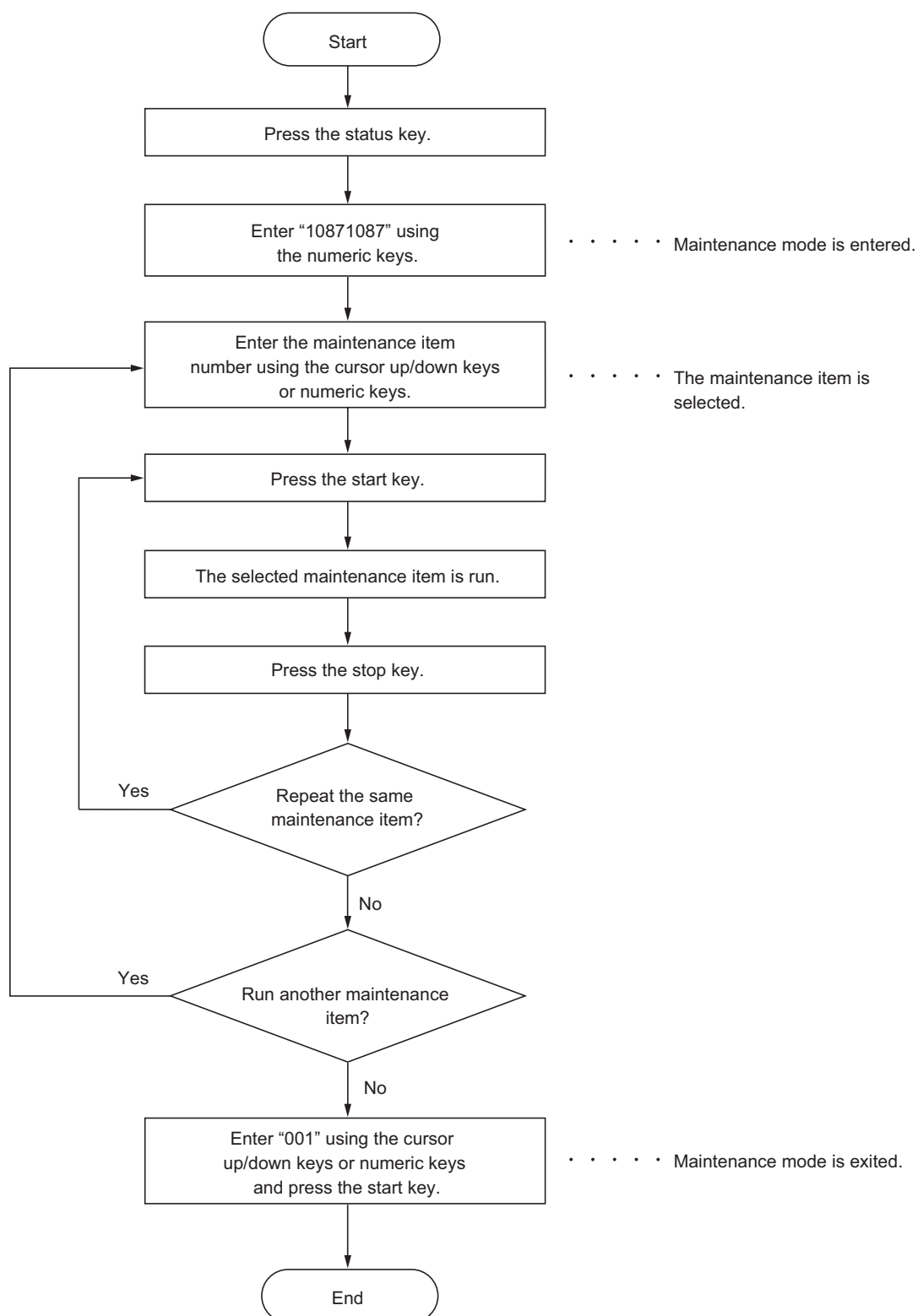
**Figure 1-2-17**

11. Turn the main power switch on and enter the maintenance mode.
12. Run maintenance item U204 and select ON.
13. Exit the maintenance mode.
14. Check that the message requesting the key counter to be inserted is displayed on the touch panel when the key counter is pulled out.
15. Check that the counter counts up as prints are made.

### 1-3-1 Maintenance mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

#### (1) Executing a maintenance item



## (2) Maintenance modes item list

Section	Item No.	Content of maintenance item	Initial setting*
General	U000	Outputting an own-status report	-
	U001	Exiting the maintenance mode	-
	U002	Setting the factory default data	-
	U003	Setting the service telephone number	*****1
	U004	Displaying the machine number	-
	U005	Copying without paper	-
	U019	Displaying the ROM version	-
Initialization	U020	Initializing all data	-
	U021	Initializing counters and mode settings	-
	U022	Initializing backup memory	-
	U024	HDD formatting	-
Drive, paper feed, paper conveying and cooling system	U030	Checking motor operation	-
	U031	Checking switches for paper conveying	-
	U032	Checking clutch operation	-
	U033	Checking solenoid operation	-
	U034	Adjusting the print start timing Adjusting the leading edge registration Adjusting the center line	245/0/-30/-30*1 490/0/0/0/0/0*1
	U035	Setting the printing area for folio paper Length/Width	330/210*1
	U051	Adjusting the amount of slack in the paper	0/0/0*1
	U053	Setting the adjustment of the motor speed Drive motor Eject motor Polygon motor	2*1 0*1 -5*1
Optical	U061	Turning the exposure lamp on	-
	U063	Adjusting the shading position	0*1
	U065	Adjusting the scanner magnification Main scanning direction/auxiliary scanning direction	0/0*1
	U066	Adjusting the scanner leading edge registration	0/0*1
	U067	Adjusting the scanner center line	0/0*1
	U068	Adjusting the scanning position for originals from the DP	0/0*1
	U070	Adjusting the DP magnification	0/0/0*1
	U071	Adjusting the DP scanning timing	0/0/0/0*1
	U072	Adjusting the DP center line	0/0/0*1
	U073	Checking scanner operation	-
	U074	Adjusting the DP input light luminosity	0/0/0*1
	U080	Setting the economy mode	-6*1
	U087	Setting DP reading position modification operation	175/170/160*1
	U089	Outputting a MIP-PG pattern	-
	U093	Setting the exposure density gradient Text and photo/text/photo	0/0/0*1
	U099	Adjusting original size detection	105/105/105/60/60/60/*1 150/240*1

\*Initial setting for executing U020, \*1: The item initialized for executing U020, \*2: The item initialized for executing U021

Section	Item No.	Content of maintenance item	Initial setting*
High voltage	U100	Setting the main high voltage	-
	U101	Setting the other high voltages Developing bias AC component frequency at image formation Developing shift bias potential at image formation Developing bias AC component duty at image formation Transfer control voltage Separation control voltage	28* <sup>1</sup> 2* <sup>1</sup> 50* <sup>1</sup> 130* <sup>1</sup> 20* <sup>1</sup>
	U102	Setting the cleaning interval for the main charger	5* <sup>1,2</sup>
	U109	Displaying the drum type	-
	U110	Checking the drum count	-
	U112	Setting toner refresh operation Time of toner refreshment Developing bias on time	120* <sup>1</sup> 700 (30 ppm)* <sup>1</sup> 540 (40/50 ppm)* <sup>1</sup>
	U114	Setting separation charger mode	MODE1* <sup>1</sup>
	U117	Checking the drum number	-
	U118	Displaying the drum history	-
Developing	U130	Initial setting for the developing unit	-
	U144	Setting toner loading operation	MODE2* <sup>1</sup>
	U150	Checking sensors for toner	-
	U157	Checking/clearing the developing drive time	-
	U158	Checking the developing count	-
Fuser and cleaning	U161	Setting the fuser control temperature Driving start temperature when warm-up starts  Control temperature for displaying [Ready for copying.]  Control temperature during printing	175 (30 ppm)* <sup>1,2</sup> 185 (40/50 ppm)* <sup>1,2</sup> 190 (30 ppm)* <sup>1,2</sup> 200 (40/50 ppm)* <sup>1,2</sup> 190 (30 ppm)* <sup>1,2</sup> 200 (40/50 ppm)* <sup>1,2</sup>
	U163	Resetting the fuser problem data	-
	U167	Checking fuser counts	-
	U196	Turning the fuser heater on	-
	U199	Checking the fuser temperature	-
Operation panel and support equipment	U200	Turning all LEDs on	-
	U201	Initializing the touch panel	-
	U202	Setting the KMAS host monitoring system	-
	U203	Checking DP operation	-
	U204	Setting the presence or absence of a key card or key counter	OFF/COUNTER* <sup>1,2</sup>
	U206	Setting the presence or absence of the coin vender	-
	U207	Checking the operation panel keys	-
	U208	Setting the paper size for the paper feeder	Inch specifications: Letter* <sup>1,2</sup> Metric specifications: A4* <sup>1,2</sup>
	U220	Setting the trial functions	-
	U234	Setting punch destination	Inch specifications: INCH* <sup>1</sup> Metric specifications: EUROPE METRIC* <sup>1</sup>
	U236	Setting the limit for the ejection section of the built-in finisher	OFF* <sup>1,2</sup>
	U237	Setting finisher stack quantity	0/0* <sup>1,2</sup>
	U240	Checking the operation of the finisher	-
	U241	Checking the operation of the switches of the finisher	-

\*Initial setting for executing U020, \*1: The item initialized for executing U020, \*2: The item initialized for executing U021

Section	Item No.	Content of maintenance item	Initial setting*
Operation panel and support equipment	U243	Checking the operation of the DP motors	-
	U244	Checking the DP switches	-
	U245	Checking messages	-
	U246	Setting the finisher 3000-sheet document finisher Centerfold unit built-in finisher	0/0/0/0/0/0* <sup>1</sup> 0/0/0/0/0/0/0/0* <sup>1</sup> 0/0/0* <sup>1</sup>
	U247	Setting the paper feed device	-
Mode setting	U250	Setting the maintenance cycle	400000 (30 ppm)* <sup>1,2</sup> 500000 (40/50 ppm)* <sup>1,2</sup>
	U251	Checking/clearing the maintenance count	-
	U252	Setting the destination	Japan* <sup>1</sup>
	U253	Switching between double and single counts	Double count* <sup>1</sup>
	U260	Selecting the timing for copy counting	After ejection* <sup>1,2</sup>
	U265	Setting OEM purchaser code	0* <sup>1</sup>
	U285	Setting service status page	ON* <sup>1</sup>
	U326	Setting the black line cleaning indication	ON/8* <sup>1,2</sup>
	U328	Side ejection setting	OFF* <sup>1,2</sup>
	U332	Setting the size conversion factor	1.0* <sup>1,2</sup>
	U341	Specific paper feed location setting for printing function	-
	U342	Setting the ejection restriction	ON* <sup>1,2</sup>
	U343	Switching between duplex/simplex copy mode	OFF* <sup>1,2</sup>
	U345	Setting the value for maintenance due indication	-
Image processing	U402	Adjusting margins of image printing	74/70/68/85/140/55* <sup>1</sup>
	U403	Adjusting margins for scanning an original on the platen	2.0/2.0/2.0/2.0* <sup>1</sup>
	U404	Adjusting margins for scanning an original from the DP	3.0/2.5/3.0/4.0* <sup>1</sup> 3.0/2.5/3.0/4.0* <sup>1</sup>
	U407	Adjusting the leading edge registration for memory image printing	47* <sup>1</sup>
	U411	Adjusting the scanner automatically	-
	U425	Setting the target	-
Network scanner	U510	Setting the enterprise mode	Inch specifications: ON* <sup>1</sup> Metric specifications: OFF* <sup>1</sup>
Others	U901	Checking/clearing copy counts by paper feed locations	-
	U902	Checking/clearing the punch-hole scrap counter	35000/0* <sup>1,2</sup>
	U903	Checking/clearing the paper jam counts	-
	U904	Checking/clearing the service call counts	-
	U905	Checking/clearing counts by optional devices	-
	U906	Resetting partial operation control	-
	U908	Checking the total counter value	-
	U910	Clearing the black ratio data	-
	U911	Checking/clearing copy counts by paper sizes	-
	U920	Checking the copy counts	-
	U927	Clearing the all copy counts and machine life counts (one time only)	-
	U928	Checking machine life counts	-

\*Initial setting for executing U020, \*1: The item initialized for executing U020, \*2: The item initialized for executing U021

Section	Item No.	Content of maintenance item	Initial setting*
Others	U933	Setting the backup kit	-
	U935	Relay board maintenance	-
	U942	Setting of amount of slack for feeding from DP	0/0 <sup>*1</sup>
	U984	Checking the developing unit number	-
	U985	Displaying the developing unit history	-
	U989	HDD scandisk	-
	U990	Checking/clearing the time for the exposure lamp to light	-
	U991	Checking the scanner count	-
	U993	Outputting a VTC-PG pattern	-

\*Initial setting for executing U020, \*1: The item initialized for executing U020, \*2: The item initialized for executing U021

## (3) Contents of the maintenance mode items

Maintenance item No.	Description																																																																																																																																																																																																																															
U000	<p><b>Outputting an own-status report</b></p> <p><b>Description</b></p> <p>Outputs lists of the current settings of the maintenance items, and paper jam and service call occurrences. Outputs the event log or service status page.</p> <p><b>Purpose</b></p> <p>To check the current setting of the maintenance items, or paper jam or service call occurrences. Before initializing or replacing the backup RAM, output a list of the current settings of the maintenance items to reenter the settings after initialization or replacement.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>Press the start key.</li><li>Select the item to be output.</li></ol> <table><tr><th>Display</th><th>Output list</th></tr><tr><td>MAINTENANCE</td><td>List of the current settings of the maintenance modes</td></tr><tr><td>EVENT LOG</td><td>Outputs the event log</td></tr><tr><td>SERVICE STATUS</td><td>Outputs the service status page</td></tr></table> <ol style="list-style-type: none"><li>Press the start key. The interrupt print mode is entered and a list is output. When A4/Letter paper is available, a report of this size is output. If not, specify the paper feed location. When output is complete, the screen for selecting an item is displayed.</li></ol> <p><b>Event log</b></p> <div><div><h3>Event Log</h3><p>MFP</p><p>Firmware version 2GN_2000.001.036    2006.04.17</p><div><div>(1)</div><div>(2)</div></div><div><div><div>(3) Paper Jam Log</div><table><thead><tr><th>#</th><th>Count.</th><th>Event Descriptions</th></tr></thead><tbody><tr><td>16</td><td>9876543</td><td>02.11.41.01.01</td></tr><tr><td>15</td><td>666554</td><td>02.11.42.02.02</td></tr><tr><td>14</td><td>4988</td><td>02.11.43.01.09</td></tr><tr><td>13</td><td>4988</td><td>02.11.44.02.11</td></tr><tr><td>12</td><td>4988</td><td></td></tr><tr><td>11</td><td>4988</td><td></td></tr><tr><td>10</td><td>1103</td><td></td></tr><tr><td>9</td><td>1103</td><td></td></tr><tr><td>8</td><td>1103</td><td>02.11.41.01.01</td></tr><tr><td>7</td><td>1103</td><td>02.11.42.02.02</td></tr><tr><td>6</td><td>1027</td><td>02.11.43.01.09</td></tr><tr><td>5</td><td>1027</td><td>02.11.44.02.11</td></tr><tr><td>4</td><td>1027</td><td>02.11.45.03.91</td></tr><tr><td>3</td><td>1027</td><td>02.01.F0.01.01</td></tr><tr><td>2</td><td>550</td><td>01.01.01.01.01</td></tr><tr><td>1</td><td>28</td><td>01.09.01.01.01</td></tr></tbody></table></div><div><div>(4) Service Call Log</div><table><thead><tr><th>#</th><th>Count.</th><th>Service Code</th></tr></thead><tbody><tr><td>8</td><td>7881214</td><td>F0.0030</td></tr><tr><td>7</td><td>578944</td><td>01.0100</td></tr><tr><td>6</td><td>5296</td><td>F0.4000</td></tr><tr><td>5</td><td>5295</td><td>F0.3010</td></tr><tr><td>4</td><td>2099</td><td>01.2100</td></tr><tr><td>3</td><td>1054</td><td>01.2100</td></tr><tr><td>2</td><td>809</td><td>01.2120</td></tr><tr><td>1</td><td>30</td><td>01.2100</td></tr></tbody></table></div><div><div>(5) Maintenance Log</div><table><thead><tr><th>#</th><th>Count.</th><th>Item</th></tr></thead><tbody><tr><td>8</td><td>9045571</td><td>00.02</td></tr><tr><td>7</td><td>704511</td><td>01.01</td></tr><tr><td>6</td><td>7045</td><td>00.01</td></tr><tr><td>5</td><td>3454</td><td>00.04</td></tr><tr><td>4</td><td>3454</td><td>00.03</td></tr><tr><td>3</td><td>3454</td><td>00.02</td></tr><tr><td>2</td><td>417</td><td>00.01</td></tr><tr><td>1</td><td>35</td><td>01.21</td></tr></tbody></table></div></div><div><div>(6) Counter Log</div><table><thead><tr><th>(f)</th><th>J01:000</th><th>J19:000</th><th>J37:000</th><th>J61:002</th><th>(g)</th><th>C0101:001</th><th>C2223:001</th><th>C3502:001</th><th>(h)</th><th>M01:01</th></tr></thead><tbody><tr><td></td><td>J02:000</td><td>J20:000</td><td>J38:000</td><td>J62:000</td><td></td><td>C0102:001</td><td>C2225:001</td><td>C3503:001</td><td></td><td>M02:01</td></tr><tr><td></td><td>J03:000</td><td>J21:000</td><td>J39:000</td><td>J63:000</td><td></td><td>C0107:001</td><td>C2228:001</td><td>C3552:001</td><td></td><td></td></tr><tr><td></td><td>J04:000</td><td>J22:000</td><td>J40:000</td><td>J64:000</td><td></td><td>C0108:001</td><td>C2259:001</td><td>C3553:001</td><td></td><td></td></tr><tr><td></td><td>J05:002</td><td>J23:002</td><td>J41:002</td><td></td><td></td><td>C0220:001</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>J06:000</td><td>J24:002</td><td>J42:002</td><td></td><td></td><td>C0220:001</td><td>C3003:001</td><td></td><td></td><td></td></tr><tr><td></td><td>J15:000</td><td></td><td>J51:000</td><td></td><td></td><td>C2002:001</td><td>C3411:001</td><td></td><td></td><td></td></tr><tr><td></td><td>J16:000</td><td>J34:000</td><td></td><td></td><td></td><td>C2030:001</td><td>C3412:001</td><td></td><td></td><td></td></tr><tr><td></td><td>J17:000</td><td>J35:000</td><td>J53:000</td><td></td><td></td><td>C2031:001</td><td>C3421:001</td><td></td><td></td><td></td></tr><tr><td></td><td>J18:000</td><td>J36:000</td><td>J54:000</td><td></td><td></td><td>C2222:001</td><td>C3431:001</td><td></td><td></td><td></td></tr></tbody></table></div></div></div>	Display	Output list	MAINTENANCE	List of the current settings of the maintenance modes	EVENT LOG	Outputs the event log	SERVICE STATUS	Outputs the service status page	#	Count.	Event Descriptions	16	9876543	02.11.41.01.01	15	666554	02.11.42.02.02	14	4988	02.11.43.01.09	13	4988	02.11.44.02.11	12	4988		11	4988		10	1103		9	1103		8	1103	02.11.41.01.01	7	1103	02.11.42.02.02	6	1027	02.11.43.01.09	5	1027	02.11.44.02.11	4	1027	02.11.45.03.91	3	1027	02.01.F0.01.01	2	550	01.01.01.01.01	1	28	01.09.01.01.01	#	Count.	Service Code	8	7881214	F0.0030	7	578944	01.0100	6	5296	F0.4000	5	5295	F0.3010	4	2099	01.2100	3	1054	01.2100	2	809	01.2120	1	30	01.2100	#	Count.	Item	8	9045571	00.02	7	704511	01.01	6	7045	00.01	5	3454	00.04	4	3454	00.03	3	3454	00.02	2	417	00.01	1	35	01.21	(f)	J01:000	J19:000	J37:000	J61:002	(g)	C0101:001	C2223:001	C3502:001	(h)	M01:01		J02:000	J20:000	J38:000	J62:000		C0102:001	C2225:001	C3503:001		M02:01		J03:000	J21:000	J39:000	J63:000		C0107:001	C2228:001	C3552:001				J04:000	J22:000	J40:000	J64:000		C0108:001	C2259:001	C3553:001				J05:002	J23:002	J41:002			C0220:001						J06:000	J24:002	J42:002			C0220:001	C3003:001					J15:000		J51:000			C2002:001	C3411:001					J16:000	J34:000				C2030:001	C3412:001					J17:000	J35:000	J53:000			C2031:001	C3421:001					J18:000	J36:000	J54:000			C2222:001	C3431:001			
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Figure 1-3-1

Figure 1-3-1

Maintenance item No.	Description			
U000	Detail of event log			
	No.	Items	Description	
	(1)	System version		
	(2)	System date		
	(3)	Paper Jam Log	#	Count.
			Event	
			Remembers 1 to 16 of occurrence. If the occurrence of the previous paper jam is less than 16, all of the paper jams are logged. When the occurrence exceeded 16, the oldest occurrence is removed.	The total page count at the time of the paper jam.
				Log code (2 digit, hexadecimal, 5 categories)  (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
	(4)	Service Call Log	#	Count.
			Service Code	
			Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diagnostics error is less than 8, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostics error.
				Self diagnostic error code (See page 1-4-22)
	(5)	Maintenance Log	#	Count.
			Item	
			Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replacement of toner container is less than 8, all of the occurrences of replacement are logged.	The total page count at the time of the replacement of the toner container.
				Code of maintenance replacing item (1 byte, 2 categories)  First byte (Replacing item) 01: Toner container 02: Maintenance kit  Second byte (Type of replacing item) 00: (fixed)
	(6)	Counter Log	(f) Jam	(g) Self diagnostic error
			(h) Maintenance item replacing	
			Comprised of three log counters including paper jams, self diagnostics errors, and replacement of the toner container.	
			Indicates the log counter of paper jams depending on location.  Refer to Paper Jam Log.  All instances including those are not occurred are displayed.	Indicates the log counter of self diagnostics errors depending on cause. (See P.1-4-22)  Example: C6000: 4  Self diagnostics error 6000 has happened four times.
				Indicates the log counter depending on the maintenance item for maintenance.  T: Toner container 00: Black M: Maintenance kit 00: (fixed)  Example: T00: 1 The toner container has been replaced once.

Maintenance item No.	Description																														
U000	<div>Service status page (1)</div> <div><div><div>Service Status Page</div><div>MFP</div><div><div>Firmware version 2GN_2000.XLG.368 2006.04.17</div><div>(1) (2)</div><div>Controller Information</div><div><div>Memory Status</div><div>(3) Option Slot1 524288KB</div><div>(4) Option Slot2 524288KB</div><div>(5) Total 1048576KB</div><div>Time</div><div>(6) Local Time Zone +01:00_Amsterdam</div><div>(7) Data and Time 10/27/2005 09:06</div><div>(8) Time Server 10.183.53.13</div><div>(9) FRPO Status</div><div>User Top Margin A1+A2/100 0.00</div><div>User Left Margin A3+A4/100 0.00</div><div>User Page Length A5+A6/100 17.30</div><div>1</div></div></div></div></div>																														
	<div>Figure 1-3-2</div> <div>Detail of Service status page</div> <table><tr><th>No.</th><th>Description</th><th>Supplement</th></tr><tr><td>(1)</td><td>System version</td><td></td></tr><tr><td>(2)</td><td>System date</td><td></td></tr><tr><td>(3)</td><td>Slot 1 RAM size</td><td></td></tr><tr><td>(4)</td><td>Slot 2 RAM size</td><td></td></tr><tr><td>(5)</td><td>Total RAM size</td><td></td></tr><tr><td>(6)</td><td>Local time zone</td><td></td></tr><tr><td>(7)</td><td>Report output date</td><td>Day/Month/Year hour:minutes</td></tr><tr><td>(8)</td><td>NTP server name</td><td></td></tr><tr><td>(9)</td><td>FRPO setting</td><td></td></tr></table>	No.	Description	Supplement	(1)	System version		(2)	System date		(3)	Slot 1 RAM size		(4)	Slot 2 RAM size		(5)	Total RAM size		(6)	Local time zone		(7)	Report output date	Day/Month/Year hour:minutes	(8)	NTP server name		(9)	FRPO setting	
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Figure 1-3-3

Maintenance item No.	Description	
U000	<b>Detail of Service status page</b>	
	<b>No.</b>	<b>Description</b>
	(10)	Engine ROM version
	(11)	Operation panel ROM version
	(12)	NV RAM version
		_ Bb 04B29 _ Bb 04B29 (a) (b) (c) (d) (e) (f)  (a) Consistency of the present software version and the database _ (underscore): OK * (Asterisk): NG (b) Database version (c) The oldest time stamp of database version (d) Consistency of the present software version and the ME firmware version _ (underscore): OK * (Asterisk): NG (e) ME firmware version (f) The oldest time stamp of the ME database version  Normal if (a) and (d) are underscored, and (b) and (e) are identical with (c) and (f).
	(13)	Scanner version
	(14)	Fax firmware version
		This item is printed only when the optional fax kit is installed.
	(15)	Serial No.
		10 digits
	(16)	Mac address
	(17)	Cleared date and output date
	(18)	Page of relation to the A4/Letter
	(19)	Average coverage
		Total/Copy/Printer/Fax
	(20)	Coverage on the final output page
	(21)	Presence or absence of the optional DP
		Installed Not Installed
	(22)	Presence or absence of the optional paper feeder
		Cassette: paper feeder LCF: 3000-sheet paper feeder Not Installed
	(23)	Presence or absence of the optional document finisher
		Inner Finisher: built-in finisher 3000-Finisher: 3000-sheet document finisher 1000-Finisher: document finisher Not Installed
	(24)	Presence or absence of the optional job separator
		Installed Not Installed
	(25)	Presence or absence of the Compact Flash
		Installed Not Installed
	(26)	Presence or absence of the optional PDF upgrade kit
		Installed: The formal version is installed Not Installed: The PDF upgrade kit is not installed Trial Version(xx/xx/xx): A trial version is installed
	(27)	Presence or absence of the optional data backup kit
		Installed Not Installed
	(28)	Presence or absence of the optional security kit
		Installed Not Installed

Maintenance item No.	Description		
<b>U000</b>	<b>No.</b>	<b>Description</b>	<b>Supplement</b>
	(29)	Identification name for the security kit	
	(30)	Security kit version	
	(31)	Printed page counts	Total/Copy/Printer/Fax
	(32)	Scanned page counts	Total/Copy/Other
	(33)	Counts by paper sizes	
	(34)	Fax kit information	This item is printed only when the optional fax kit is installed.
	(35)	Destination information/Area information	
	(36)	Printable area setting	
	(37)	Offset for each bin	MP tray (top)/MP tray (left)/Cassette 2 (top)/Cassette 2 (left)
	(38)	Margin setting	System (top)/System (left)
	(39)	Panel lock information/USB information	Panel lock 0: OFF/1: Partial lock/2: Full lock USB 0: Not installed/1: Full speed/2: Hi speed
	(40)	Engine information	
	(41)	RFID information	
	(42)	Maintenance information	
<b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.			
<b>U001</b>	<b>Exiting the maintenance mode</b> <b>Description</b> Exits the maintenance mode and returns to the normal copy mode. <b>Purpose</b> To exit the maintenance mode. <b>Method</b> Press the start key. The normal copy mode is entered.		
<b>U002</b>	<b>Setting the factory default data</b> <b>Description</b> Restores the machine conditions to the factory default settings. <b>Purpose</b> To move the mirror frame of the scanner to the position for transport (position in which the frame can be fixed). <b>Method</b> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [MODE1(ALL)] on the touch panel.</li> <li>3. Press the start key. The mirror frame of the scanner returns to the position for transport.</li> <li>4. Turn the main power switch off and on.</li> </ol> <p>If initialization error occurs, an error code is displayed. See Error Codes on P.1-3-14.            If ERROR 09 occurs, turn the main power switch off then on, and run maintenance item U024 to format the hard disk. And then, and run maintenance item U002 for initialization again. If other error occurs, turn the main power switch off then on, and run maintenance item U002 for initialization.</p>		

Maintenance item No.	Description						
<b>U003</b>	<p><b>Setting the service telephone number</b></p> <p><b>Description</b> Sets the telephone number to be displayed when a service call code is detected.</p> <p><b>Purpose</b> To set the telephone number to call service when installing the machine.</p> <p><b>Method</b> Press the start key. The currently set telephone number is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key. The keys to enter the number are displayed on the touch panel.</li> <li>2. Press [TEL NO.] on the touch panel.</li> <li>3. Enter a telephone number (up to 15 digits).</li> <li>4. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
<b>U004</b>	<p><b>Displaying the machine number</b></p> <p><b>Description</b> Displays the machine number.</p> <p><b>Purpose</b> To check the machine number.</p> <p><b>Method</b> Press the start key. The currently machine number is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
<b>U005</b>	<p><b>Copying without paper</b></p> <p><b>Description</b> Simulates the copy operation without paper feed.</p> <p><b>Purpose</b> To check the overall operation of the machine.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to be operated.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Operation</th></tr> </thead> <tbody> <tr> <td>MFP</td><td>Only the machine operates.</td></tr> <tr> <td>MFP + DP</td><td>Both the machine and DP operate (continuous operation).</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>3. Press the system menu key. The copy mode screen is displayed.</li> <li>4. Set the operation conditions required on the copy mode screen. Changes in the following settings can be made. Paper feed locations Magnifications Simplex or duplex copy mode Number of copies: in simplex copy mode, continuous copying is performed when set to 999; in duplex copy mode, continuous copying is performed regardless of the setting. Copy density Keys on the operation panel</li> <li>5. To control the paper feed pulley, remove all the paper in the drawers, or the drawers. With the paper present, the paper feed pulley does not operate.</li> <li>6. Press the start key. The operation starts. Copy operation is simulated without paper under the set conditions. To stop continuous operation, press the stop key.</li> <li>7. To return to the screen for selecting an item, press the system menu key.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Operation	MFP	Only the machine operates.	MFP + DP	Both the machine and DP operate (continuous operation).
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MFP + DP	Both the machine and DP operate (continuous operation).						

Maintenance item No.	Description																																														
U019	<p><b>Displaying the ROM version</b></p> <p><b>Description</b> Displays the part number of the ROM fitted to each PWB.</p> <p><b>Purpose</b> To check the part number or to decide, if the newest version of ROM is installed.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key. The ROM version are displayed.</li> <li>2. Change the screen using the cursor up/down keys</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr><td>MAIN</td><td>Main PWB ROM IC</td></tr> <tr><td>MMI</td><td>Operation PWB ROM IC</td></tr> <tr><td>ENGINE</td><td>Engine PWB ROM IC</td></tr> <tr><td>ENGINE BOOT</td><td>Engine PWB booting</td></tr> <tr><td>SCANNER</td><td>Scanner PWB ROM IC</td></tr> <tr><td>OPTION LANGUAGE</td><td>Optional language ROM IC</td></tr> <tr><td>DICTIONARY</td><td>-</td></tr> <tr><td>DP</td><td>Optional DP main PWB ROM IC</td></tr> <tr><td>LCF</td><td>Optional 3000-sheet paper feeder main PWB ROM IC</td></tr> <tr><td>OPTION CASSETTE</td><td>Optional paper feeder main PWB ROM IC</td></tr> <tr><td>DF MAIN</td><td>Optional 3000-sheet document finisher main PWB ROM IC</td></tr> <tr><td>DF MTRAY</td><td>Optional 3000-sheet document finisher internal tray PWB ROM IC</td></tr> <tr><td>DF SADDLE</td><td>Optional centerfold main PWB ROM IC</td></tr> <tr><td>DF MAILBOX</td><td>Optional mail box main PWB ROM IC</td></tr> <tr><td>INNER DF</td><td>Optional built-in finisher main PWB ROM IC</td></tr> <tr><td>SIMPLE DF MAIN</td><td>Optional document sheet finisher main PWB ROM IC</td></tr> <tr><td>FAX BOOT1</td><td>Optional fax control PWB booting</td></tr> <tr><td>FAX APL1</td><td>Optional fax control PWB APL</td></tr> <tr><td>FAX IPL1</td><td>Optional fax control PWB IPL</td></tr> <tr><td>FAX BOOT2</td><td>-</td></tr> <tr><td>FAX APL2</td><td>-</td></tr> <tr><td>FAX IPL2</td><td>-</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MAIN	Main PWB ROM IC	MMI	Operation PWB ROM IC	ENGINE	Engine PWB ROM IC	ENGINE BOOT	Engine PWB booting	SCANNER	Scanner PWB ROM IC	OPTION LANGUAGE	Optional language ROM IC	DICTIONARY	-	DP	Optional DP main PWB ROM IC	LCF	Optional 3000-sheet paper feeder main PWB ROM IC	OPTION CASSETTE	Optional paper feeder main PWB ROM IC	DF MAIN	Optional 3000-sheet document finisher main PWB ROM IC	DF MTRAY	Optional 3000-sheet document finisher internal tray PWB ROM IC	DF SADDLE	Optional centerfold main PWB ROM IC	DF MAILBOX	Optional mail box main PWB ROM IC	INNER DF	Optional built-in finisher main PWB ROM IC	SIMPLE DF MAIN	Optional document sheet finisher main PWB ROM IC	FAX BOOT1	Optional fax control PWB booting	FAX APL1	Optional fax control PWB APL	FAX IPL1	Optional fax control PWB IPL	FAX BOOT2	-	FAX APL2	-	FAX IPL2	-
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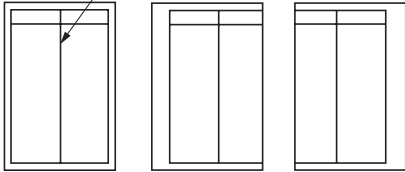
Maintenance item No.	Description																																				
U020	<p><b>Initializing all data</b></p> <p><b>Description</b> Initializes all the backup RAM on the main PWB to return to the original settings. Refer to *1 of the maintenance mode item list about the item initialized.</p> <p><b>Purpose</b> To be executed as required.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the destination.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>INCH</td><td>Inch (North America) specifications</td></tr> <tr> <td>EUROPE METRIC</td><td>Metric (Europe) specifications</td></tr> <tr> <td>ASIA PACIFIC</td><td>Metric (Asia Pacific) specifications</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>3. Press the start key. All data in the backup RAM is initialized Turn the main power switch off and on.</li> </ol> <p>If initialization error occurs, an error code is displayed. If ERROR 09 occurs, turn the main power switch off then on, and run maintenance item U024 to format the hard disk. And then, and run maintenance item U020 for initialization again. If other error occurs, turn the main power switch off then on, and run maintenance item U020 for initialization.</p> <p><b>Error codes</b></p> <table border="1"> <thead> <tr> <th>Codes</th><th>Description</th></tr> </thead> <tbody> <tr><td>ERROR 01</td><td>Configuration initialization error</td></tr> <tr><td>ERROR 02</td><td>Counter initialization error</td></tr> <tr><td>ERROR 03</td><td>One-touch initialization error</td></tr> <tr><td>ERROR 04</td><td>Panel program initialization error</td></tr> <tr><td>ERROR 05</td><td>Event log initialization error</td></tr> <tr><td>ERROR 06</td><td>Account initialization error</td></tr> <tr><td>ERROR 07</td><td>Address book initialization error</td></tr> <tr><td>ERROR 08</td><td>Department initialization error</td></tr> <tr><td>ERROR 09</td><td>Document box initialization error</td></tr> <tr><td>ERROR 0a</td><td>Permission initialization error</td></tr> <tr><td>ERROR 0b</td><td>Job log initialization error</td></tr> <tr><td>ERROR 20</td><td>Engine PWB initialization error</td></tr> <tr><td>ERROR 40</td><td>Scanner PWB initialization error</td></tr> </tbody> </table>	Display	Description	INCH	Inch (North America) specifications	EUROPE METRIC	Metric (Europe) specifications	ASIA PACIFIC	Metric (Asia Pacific) specifications	Codes	Description	ERROR 01	Configuration initialization error	ERROR 02	Counter initialization error	ERROR 03	One-touch initialization error	ERROR 04	Panel program initialization error	ERROR 05	Event log initialization error	ERROR 06	Account initialization error	ERROR 07	Address book initialization error	ERROR 08	Department initialization error	ERROR 09	Document box initialization error	ERROR 0a	Permission initialization error	ERROR 0b	Job log initialization error	ERROR 20	Engine PWB initialization error	ERROR 40	Scanner PWB initialization error
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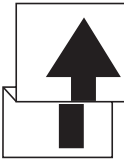
Maintenance item No.	Description																
U021	<p><b>Initializing counters and mode settings</b></p> <p><b>Description</b> Initializes all settings, except those pertinent to the type of copier, namely each counter, service call history and mode setting. Also initializes backup RAM according to region specification selected in maintenance item U252 Setting the destination. Refer to *2 of the maintenance mode item list about the item initialized.</p> <p><b>Purpose</b> To return the machine settings to their factory default.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXECUTE] on the touch panel.</li> <li>3. Press the start key. All data other than that for adjustments due to variations between machines is initialized based on the destination setting.</li> <li>4. Turn the main power switch off and on.</li> </ol> <p>If initialization error occurs, an error code is displayed. See Error Codes on P.1-3-14. If ERROR 09 occurs, turn the main power switch off then on, and run maintenance item U024 to format the hard disk. And then, and run maintenance item U021 for initialization again. If other error occurs, turn the main power switch off then on, and run maintenance item U021 for initialization.</p>																
U022	<p><b>Initializing backup memory</b></p> <p><b>Description</b> Initializes only the backup data for image processing.</p> <p><b>Purpose</b> To be executed as required.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to initialize.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MAIN+ENGINE</td><td>Initialize the backup data of main PWB and engine PWB.</td></tr> <tr> <td>SCANNER</td><td>Initialize the backup data of scanner PWB.</td></tr> <tr> <td>DP</td><td>Initialize the backup data of DP main PWB.</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>3. Select the destination.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>INCH</td><td>Inch (North America) specifications</td></tr> <tr> <td>EUROPE METRIC</td><td>Metric (Europe) specifications</td></tr> <tr> <td>ASIA PACIFIC</td><td>Metric (Asia Pacific) specifications</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>4. Press the start key. All data in the backup RAM is initialized.</li> <li>5. Turn the main power switch off and on.</li> </ol> <p>If initialization error occurs, an error code is displayed. See Error Codes on P.1-3-14. If ERROR 09 occurs, turn the main power switch off then on, and run maintenance item U024 to format the hard disk. And then, and run maintenance item U022 for initialization again. If other error occurs, turn the main power switch off then on, and run maintenance item U022 for initialization.</p>	Display	Description	MAIN+ENGINE	Initialize the backup data of main PWB and engine PWB.	SCANNER	Initialize the backup data of scanner PWB.	DP	Initialize the backup data of DP main PWB.	Display	Description	INCH	Inch (North America) specifications	EUROPE METRIC	Metric (Europe) specifications	ASIA PACIFIC	Metric (Asia Pacific) specifications
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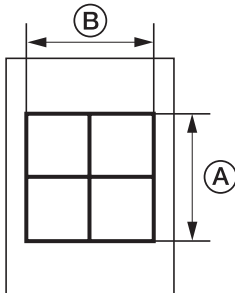
Maintenance item No.	Description																				
<b>U024</b>	<p><b>HDD formatting</b></p> <p><b>Description</b> Formats the HDD backup data areas for the document management, network scanner and department administration.</p> <p><b>Purpose</b> To initialize the HDD when replacing the HDD after shipping.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXECUTE] on the touch panel.</li> <li>3. Press the start key to initialize the hard disk.</li> <li>4. Turn the main power switch off and on.</li> </ol>																				
<b>U030</b>	<p><b>Checking motor operation</b></p> <p><b>Description</b> Drives each motor.</p> <p><b>Purpose</b> To check the operation of each motor.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the motor to be operated.</li> <li>3. Press the start key. The operation starts.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Operation</th></tr> </thead> <tbody> <tr> <td>FEED</td><td>Paper feed motor operates</td></tr> <tr> <td>MAIN</td><td>Drive motor operates</td></tr> <tr> <td>EJECT(FW)</td><td>Eject motor rotates forward</td></tr> <tr> <td>EJECT(REV)</td><td>Eject motor rotates in reverse</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>4. To stop operation, press the stop key.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Operation	FEED	Paper feed motor operates	MAIN	Drive motor operates	EJECT(FW)	Eject motor rotates forward	EJECT(REV)	Eject motor rotates in reverse										
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FEED	Paper feed motor operates																				
MAIN	Drive motor operates																				
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EJECT(REV)	Eject motor rotates in reverse																				
<b>U031</b>	<p><b>Checking switches for paper conveying</b></p> <p><b>Description</b> Displays the on-off status of each paper detection switch on the paper path.</p> <p><b>Purpose</b> To check if the switches for paper conveying operate correctly.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Turn each switch on and off manually to check the status.</li> </ol> <p>When a switch is detected to be in the ON position, the display for that switch will be highlighted.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>FEED1</td><td>Feed switch 1 (FSW1)</td></tr> <tr> <td>FEED2</td><td>Feed switch 2 (FSW2)</td></tr> <tr> <td>FEED3</td><td>Feed switch 3 (FSW3)</td></tr> <tr> <td>MP TRAY</td><td>MP feed switch (MPFSW)</td></tr> <tr> <td>REGIST</td><td>Registration switch (RSW)</td></tr> <tr> <td>EJECT</td><td>Eject switch (ESW)</td></tr> <tr> <td>BRANCH</td><td>Feedshift switch (FSSW)</td></tr> <tr> <td>DUPLEX</td><td>Duplex paper conveying switch (DUPPCSW)</td></tr> <tr> <td>JOB SEPARATOR</td><td>Job separator eject switch (JBESW)*</td></tr> </tbody> </table> <p>*: Optional.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches	FEED1	Feed switch 1 (FSW1)	FEED2	Feed switch 2 (FSW2)	FEED3	Feed switch 3 (FSW3)	MP TRAY	MP feed switch (MPFSW)	REGIST	Registration switch (RSW)	EJECT	Eject switch (ESW)	BRANCH	Feedshift switch (FSSW)	DUPLEX	Duplex paper conveying switch (DUPPCSW)	JOB SEPARATOR	Job separator eject switch (JBESW)*
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DUPLEX	Duplex paper conveying switch (DUPPCSW)																				
JOB SEPARATOR	Job separator eject switch (JBESW)*																				

Maintenance item No.	Description																						
<b>U032</b>	<p><b>Checking clutch operation</b></p> <p><b>Description</b> Turns each clutch on.</p> <p><b>Purpose</b> To check the operation of each clutch.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the clutch to be operated.</li> <li>3. Press the start key. The clutch turns on for 1 s.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Clutches</th></tr> </thead> <tbody> <tr> <td>PF1</td><td>Upper paper feed clutch (PFCL-U)</td></tr> <tr> <td>PF2</td><td>Lower paper feed clutch (PFCL-L)</td></tr> <tr> <td>PF MP TRAY</td><td>MP paper feed clutch (MPPFCL)</td></tr> <tr> <td>FEED1</td><td>Feed clutch 1 (FCL1)</td></tr> <tr> <td>FEED2</td><td>Feed clutch 2 (FCL2)</td></tr> <tr> <td>FEED3</td><td>Feed clutch 3 (FCL3)</td></tr> <tr> <td>FEED MP TRAY</td><td>MP feed clutch (MPFCL)</td></tr> <tr> <td>REGIST</td><td>Registration clutch (RCL)</td></tr> <tr> <td>DUPLEX</td><td>Duplex feed clutch (DUPFCL)</td></tr> <tr> <td>MOTOR ON</td><td>The drive motor (DM) and the paper feed motor (PFM) are turned ON.</td></tr> </tbody> </table> <p>To stop motor driving, press [MOTOR ON] again.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Clutches	PF1	Upper paper feed clutch (PFCL-U)	PF2	Lower paper feed clutch (PFCL-L)	PF MP TRAY	MP paper feed clutch (MPPFCL)	FEED1	Feed clutch 1 (FCL1)	FEED2	Feed clutch 2 (FCL2)	FEED3	Feed clutch 3 (FCL3)	FEED MP TRAY	MP feed clutch (MPFCL)	REGIST	Registration clutch (RCL)	DUPLEX	Duplex feed clutch (DUPFCL)	MOTOR ON	The drive motor (DM) and the paper feed motor (PFM) are turned ON.
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PF1	Upper paper feed clutch (PFCL-U)																						
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PF MP TRAY	MP paper feed clutch (MPPFCL)																						
FEED1	Feed clutch 1 (FCL1)																						
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FEED3	Feed clutch 3 (FCL3)																						
FEED MP TRAY	MP feed clutch (MPFCL)																						
REGIST	Registration clutch (RCL)																						
DUPLEX	Duplex feed clutch (DUPFCL)																						
MOTOR ON	The drive motor (DM) and the paper feed motor (PFM) are turned ON.																						
<b>U033</b>	<p><b>Checking solenoid operation</b></p> <p><b>Description</b> Applies current to each solenoid in order to check its ON status.</p> <p><b>Purpose</b> To check the operation of each solenoid.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the solenoid to be operated.</li> <li>3. Press the start key. The solenoid turns on for 1 s.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Solenoids</th></tr> </thead> <tbody> <tr> <td>TONER</td><td>Toner feed solenoid (TNFSOL)</td></tr> <tr> <td>BRANCH1</td><td>Feedshift solenoid (FSSOL)</td></tr> <tr> <td>BRANCH2</td><td>Feedshift solenoid (FSSOL)*</td></tr> <tr> <td>MOTOR ON</td><td>The drive motor (DM) and the paper feed motor (PFM) are turned on.</td></tr> </tbody> </table> <p>*Optional.</p> <p>To stop motor driving, press [MOTOR ON] again.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Solenoids	TONER	Toner feed solenoid (TNFSOL)	BRANCH1	Feedshift solenoid (FSSOL)	BRANCH2	Feedshift solenoid (FSSOL)*	MOTOR ON	The drive motor (DM) and the paper feed motor (PFM) are turned on.												
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Maintenance item No.	Description																															
U034	<p><b>Adjusting the print start timing</b></p> <p><b>Description</b></p> <p>Adjusts the leading edge registration or center line.</p> <p><b>Purpose</b></p> <p>Make the adjustment if there is a regular error between the leading edges of the copy image and original.</p> <p>Make the adjustment if there is a regular error between the center lines of the copy image and original.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>Press the start key.</li><li>Select the item to be adjusted. The setting screen for the selected item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>LSU OUT TOP</td><td>Leading edge registration adjustment</td></tr><tr><td>LSU OUT LEFT</td><td>Center line adjustment</td></tr></table> <p><b>Adjustment: leading edge registration adjustment</b></p> <ol style="list-style-type: none"><li>Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>TOP</td><td>Adjustment of reference value</td><td>0 to 500</td><td>245</td><td>1.0 mm</td></tr><tr><td>MP TRAY</td><td>Paper feed from MP tray*</td><td>-250 to 250</td><td>0</td><td>1.0 mm</td></tr><tr><td>CASSETTE</td><td>Paper feed from cassette*</td><td>-250 to 250</td><td>-30</td><td>1.0 mm</td></tr><tr><td>DUPLEX</td><td>Duplex mode (second)*</td><td>-250 to 250</td><td>-30</td><td>1.0 mm</td></tr></table> <p>*: Setting the difference value from reference value</p> <ol style="list-style-type: none"><li>Press the system menu key.</li><li>Press the start key to output a test pattern.</li><li>Press the system menu key.</li><li>Change the setting value using the +/- or numeric keys.</li></ol> <p>For output example 1, decrease the value. For output example 2, increase the value.</p> <div><p>Leading edge registration</p><p>Correct image      Output example 1      Output example 2</p></div> <p><b>Figure 1-3-4</b></p> <ol style="list-style-type: none"><li>Press the start key. The value is set.</li></ol> <p><b>Caution</b></p> <p>Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U034</div><div>→</div><div>U066 (P.1-3-24)</div><div>→</div><div>U071 (P.1-3-28)</div></div>	Display	Description	LSU OUT TOP	Leading edge registration adjustment	LSU OUT LEFT	Center line adjustment	Display	Description	Setting range	Initial setting	Change in value per step	TOP	Adjustment of reference value	0 to 500	245	1.0 mm	MP TRAY	Paper feed from MP tray*	-250 to 250	0	1.0 mm	CASSETTE	Paper feed from cassette*	-250 to 250	-30	1.0 mm	DUPLEX	Duplex mode (second)*	-250 to 250	-30	1.0 mm
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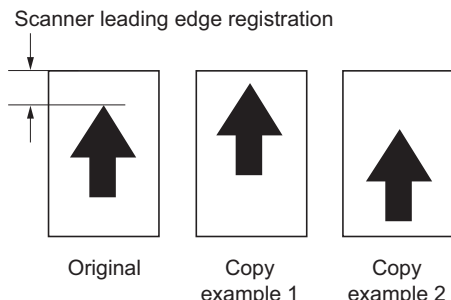
Maintenance item No.	Description																																								
U034	<b>Adjustment: center line adjustment</b> 1. Select the item to be adjusted.																																								
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>LEFT</td><td>Adjustment of reference value</td><td>0 to 1000</td><td>490</td><td>1.0 mm</td></tr><tr><td>MP TRAY</td><td>Paper feed from MP tray*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr><tr><td>CASSETTE 1</td><td>Paper feed from cassette 1*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr><tr><td>CASSETTE 2</td><td>Paper feed from cassette 2*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr><tr><td>CASSETTE 3</td><td>Paper feed from optional cassette 3*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr><tr><td>CASSETTE 4</td><td>Paper feed from optional cassette 4*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr><tr><td>DUPLEX</td><td>Duplex mode (second)*</td><td>-500 to 500</td><td>0</td><td>1.0 mm</td></tr></table>	Display	Description	Setting range	Initial setting	Change in value per step	LEFT	Adjustment of reference value	0 to 1000	490	1.0 mm	MP TRAY	Paper feed from MP tray*	-500 to 500	0	1.0 mm	CASSETTE 1	Paper feed from cassette 1*	-500 to 500	0	1.0 mm	CASSETTE 2	Paper feed from cassette 2*	-500 to 500	0	1.0 mm	CASSETTE 3	Paper feed from optional cassette 3*	-500 to 500	0	1.0 mm	CASSETTE 4	Paper feed from optional cassette 4*	-500 to 500	0	1.0 mm	DUPLEX	Duplex mode (second)*	-500 to 500	0	1.0 mm
	Display	Description	Setting range	Initial setting	Change in value per step																																				
	LEFT	Adjustment of reference value	0 to 1000	490	1.0 mm																																				
	MP TRAY	Paper feed from MP tray*	-500 to 500	0	1.0 mm																																				
	CASSETTE 1	Paper feed from cassette 1*	-500 to 500	0	1.0 mm																																				
	CASSETTE 2	Paper feed from cassette 2*	-500 to 500	0	1.0 mm																																				
	CASSETTE 3	Paper feed from optional cassette 3*	-500 to 500	0	1.0 mm																																				
	CASSETTE 4	Paper feed from optional cassette 4*	-500 to 500	0	1.0 mm																																				
	DUPLEX	Duplex mode (second)*	-500 to 500	0	1.0 mm																																				
*: Setting the difference value from reference value																																									
2. Press the system menu key.																																									
3. Press the start key to output a test pattern.																																									
4. Press the system menu key.																																									
5. Change the setting value using the +/- or numeric keys. For output example 1, decrease the value. For output example 2, increase the value.																																									
<div><div><div>Center line of printing</div></div><div>Correct image      Output example 1      Output example 2</div></div>																																									
<b>Figure 1-3-5</b>																																									
6. Press the start key. The value is set.																																									
<b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.																																									
<div><div>U034</div><div>→</div><div>U067 (P.1-3-25)</div><div>→</div><div>U072 (P.1-3-30)</div></div>																																									
<b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.																																									
U035	<b>Setting the printing area for folio paper</b>																																								
	<b>Description</b> Changes the printing area for copying on folio paper.																																								
	<b>Purpose</b> To prevent cropped images on the trailing edge or left/right side of copy paper by setting the actual printing area for folio paper.																																								
	<b>Setting</b> 1. Press the start key. 2. Select the item to be set. 3. Change the setting using the +/- or numeric keys.																																								
	<table><tr><th>Display</th><th>Setting</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>LENGTH DATA</td><td>Length</td><td>330 to 356 mm</td><td>330</td></tr><tr><td>WIDTH DATA</td><td>Width</td><td>200 to 220 mm</td><td>210</td></tr></table>	Display	Setting	Setting range	Initial setting	LENGTH DATA	Length	330 to 356 mm	330	WIDTH DATA	Width	200 to 220 mm	210																												
	Display	Setting	Setting range	Initial setting																																					
	LENGTH DATA	Length	330 to 356 mm	330																																					
	WIDTH DATA	Width	200 to 220 mm	210																																					
	4. Press the start key. The value is set.																																								
	<b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.																																								

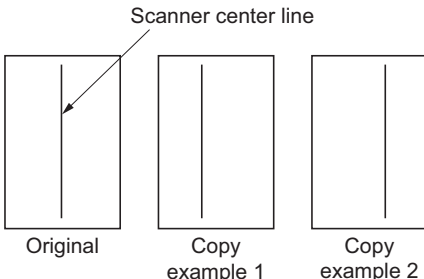
Maintenance item No.	Description																				
U051	<p><b>Adjusting the amount of slack in the paper</b></p> <p><b>Description</b> Adjusts the amount of slack in the paper</p> <p><b>Purpose</b> Make the adjustment if the leading edge of the copy image is missing or varies randomly, or if the copy paper is Z-folded.</p> <p><b>Adjustment</b></p> <div><div><div>1. Press the start key.</div><div>2. Select the item to be adjusted.</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>MP TRAY</td><td>Paper feed from MP tray</td><td>-30 to 20</td><td>0</td></tr><tr><td>CASSETTE</td><td>Paper feed from cassette</td><td>-30 to 20</td><td>0</td></tr><tr><td>DUPLEX</td><td>Duplex mode (second)</td><td>-30 to 20</td><td>0</td></tr><tr><td>MP TRAY (THICK)</td><td>Paper feed from MP tray (thick paper)</td><td>-30 to 20</td><td>0</td></tr></table><div><div><div>3. Press the system menu key.</div><div>4. Place an original and press the start key to make a test copy.</div><div>5. Press the system menu key.</div><div>6. Change the setting value using the +/- or numeric keys.</div></div><div><div>For output example 1, increase the value. For output example 2, decrease the value.</div><div>The greater the value, the larger the amount of slack; the smaller the value, the smaller the amount of slack.</div></div></div><div><div><div><div></div><div>Original</div></div><div><div></div><div>Copy example 1</div></div><div><div></div><div>Copy example 2</div></div></div></div><p><b>Figure 1-3-6</b></p><div><div><div>7. Press the start key. The value is set.</div></div><p><b>Completion</b> Press the stop key. The indication for selecting a maintenance item No. appears.</p></div></div>	Display	Description	Setting range	Initial setting	MP TRAY	Paper feed from MP tray	-30 to 20	0	CASSETTE	Paper feed from cassette	-30 to 20	0	DUPLEX	Duplex mode (second)	-30 to 20	0	MP TRAY (THICK)	Paper feed from MP tray (thick paper)	-30 to 20	0
Display	Description	Setting range	Initial setting																		
MP TRAY	Paper feed from MP tray	-30 to 20	0																		
CASSETTE	Paper feed from cassette	-30 to 20	0																		
DUPLEX	Duplex mode (second)	-30 to 20	0																		
MP TRAY (THICK)	Paper feed from MP tray (thick paper)	-30 to 20	0																		

Maintenance item No.	Description																
U053	<p><b>Setting the adjustment of the motor speed</b></p> <p><b>Description</b> Performs fine adjustment of the speeds of the motors.</p> <p><b>Purpose</b> To adjust the speed of the respective motors when the magnification is not correct.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>MAIN MOTOR</td><td>Drive motor speed adjustment</td><td>-40 to 40</td><td>2</td></tr><tr><td>EJECT MOTOR</td><td>Eject motor speed adjustment</td><td>-7 to 15</td><td>0</td></tr><tr><td>POLYGON MOTR</td><td>Polygon motor speed adjustment</td><td>-20 to 20</td><td>-5</td></tr></table> <p><b>Adjustment</b></p> <ol style="list-style-type: none"><li>1. Press the system menu key.</li><li>2. Press the start key to output an A3/Ledger VTC pattern.</li></ol> <div><p>Correct values for an A3/Ledger output are: A = 300 ± 0.75mm B = 270 ± 1.35 mm</p></div> <p><b>Figure 1-3-7</b></p> <ol style="list-style-type: none"><li>3. Press the system menu key.</li><li>4. Change the setting value using the +/- or numeric keys. A: Drive motor speed adjustment Increasing the setting makes the image longer in the auxiliary scanning direction, and decreasing it makes the image shorter in the auxiliary scanning direction. B: Polygon motor speed adjustment Increasing the setting makes the image shorter in the main scanning direction and longer in the auxiliary scanning direction; decreasing the setting makes the image longer in the main scanning direction and shorter in the auxiliary scanning direction.</li><li>5. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The indication for selecting a maintenance item No. appears.</p>	Display	Description	Setting range	Initial setting	MAIN MOTOR	Drive motor speed adjustment	-40 to 40	2	EJECT MOTOR	Eject motor speed adjustment	-7 to 15	0	POLYGON MOTR	Polygon motor speed adjustment	-20 to 20	-5
Display	Description	Setting range	Initial setting														
MAIN MOTOR	Drive motor speed adjustment	-40 to 40	2														
EJECT MOTOR	Eject motor speed adjustment	-7 to 15	0														
POLYGON MOTR	Polygon motor speed adjustment	-20 to 20	-5														

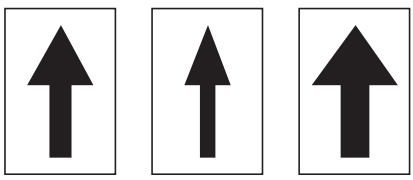
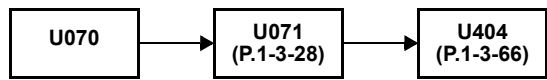
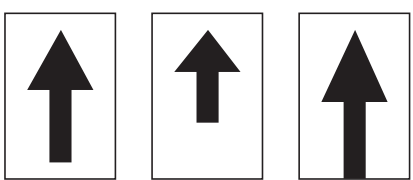
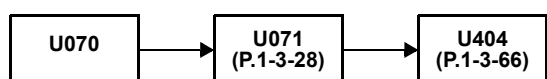
Maintenance item No.	Description								
U061	<p><b>Turning the exposure lamp on</b></p> <p><b>Description</b> Turns the exposure lamp on.</p> <p><b>Purpose</b> To check the exposure lamp.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>CCD</td><td>Exposure lamp</td></tr><tr><td>CIS</td><td>CIS (optional DP exposure lamp)</td></tr></table> <ol style="list-style-type: none"><li>3. Press the start key. The selected lamp lights.</li><li>4. To turn the exposure lamp off, press the stop key.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	CCD	Exposure lamp	CIS	CIS (optional DP exposure lamp)		
Display	Description								
CCD	Exposure lamp								
CIS	CIS (optional DP exposure lamp)								
U063	<p><b>Adjusting the shading position</b></p> <p><b>Description</b> Changes the shading position of the scanner.</p> <p><b>Purpose</b> Used when white lines continue to appear longitudinally on the image after the shading plate is cleaned. This is due to flaws or stains inside the shading plate. To prevent this problem, the shading position should be changed so that shading is possible without being affected by the flaws or stains.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Shading position</td><td>-12 to 18</td><td>0</td><td>0.11 mm</td></tr></table> <p>Increasing the setting moves the shading position toward the machine right, and decreasing it moves the position toward the machine left.</p> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li></ol> <p><b>Supplement</b> While this maintenance item is being executed, copying from an original is available in the interrupt copying mode.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Description	Setting range	Initial setting	Change in value per step	Shading position	-12 to 18	0	0.11 mm
Description	Setting range	Initial setting	Change in value per step						
Shading position	-12 to 18	0	0.11 mm						




Maintenance item No.	Description															
U065	<p><b>Adjusting the scanner magnification</b></p> <p><b>Description</b> Adjusts the magnification of the original scanning.</p> <p><b>Purpose</b> Make the adjustment if the magnification in the main scanning direction is incorrect. Make the adjustment if the magnification in the auxiliary scanning direction is incorrect.</p> <p><b>Caution</b> Adjust the magnification of the scanner in the following order.</p> <div><div>U053 (P.1-3-21)</div>→<div>U065 (main scanning direction)</div>→<div>U065 (auxiliary scanning direction)</div>→<div>U067 (P.1-3-25)</div>→<div>U070 (P.1-3-26)</div></div> <p><b>Method</b></p> <ol style="list-style-type: none"><li>Press the start key.</li><li>Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>MAIN SCAN ADJ</td><td>Scanner magnification in the main scanning direction</td><td>-15 to 15</td><td>0</td><td>0.1 %</td></tr><tr><td>SUB SCAN ADJ</td><td>Scanner magnification in the auxiliary scanning direction</td><td>-25 to 25</td><td>0</td><td>0.1 %</td></tr></table> <p><b>Adjustment: main scanning direction</b></p> <ol style="list-style-type: none"><li>Press the system menu key.</li><li>Place an original and press the start key to make a test copy.</li><li>Press the system menu key.</li><li>Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li></ol> <div><div> Original</div><div> Copy example 1</div><div> Copy example 2</div></div> <p><b>Figure 1-3-8</b></p> <ol style="list-style-type: none"><li>Press the start key. The value is set.</li></ol> <p><b>Adjustment: auxiliary scanning direction</b></p> <ol style="list-style-type: none"><li>Press the system menu key.</li><li>Place an original and press the start key to make a test copy.</li><li>Press the system menu key.</li><li>Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li></ol> <div><div> Original</div><div> Copy example 1</div><div> Copy example 2</div></div> <p><b>Figure 1-3-9</b></p> <ol style="list-style-type: none"><li>Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	MAIN SCAN ADJ	Scanner magnification in the main scanning direction	-15 to 15	0	0.1 %	SUB SCAN ADJ	Scanner magnification in the auxiliary scanning direction	-25 to 25	0	0.1 %
Display	Description	Setting range	Initial setting	Change in value per step												
MAIN SCAN ADJ	Scanner magnification in the main scanning direction	-15 to 15	0	0.1 %												
SUB SCAN ADJ	Scanner magnification in the auxiliary scanning direction	-25 to 25	0	0.1 %												

Maintenance item No.	Description															
U066	<p><b>Adjusting the scanner leading edge registration</b></p> <p><b>Description</b> Adjusts the scanner leading edge registration of the original scanning.</p> <p><b>Purpose</b> Make the adjustment if there is a regular error between the leading edges of the copy image and original.</p> <p><b>Adjustment</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be adjusted.</li></ol> <table><thead><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr></thead><tbody><tr><td>ADJUST DATA 1</td><td>Scanner leading edge registration</td><td>-45 to 45</td><td>0</td><td>0.11 mm</td></tr><tr><td>ADJUST DATA2</td><td>Scanner leading edge registration (rotate copying)</td><td>-45 to 45</td><td>0</td><td>0.10 mm</td></tr></tbody></table> <ol style="list-style-type: none"><li>3. Press the system menu key.</li><li>4. Place an original and press the start key to make a test copy.</li><li>5. Press the system menu key.</li><li>6. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li></ol> <div><p>Scanner leading edge registration</p><p>Original                  Copy example 1                  Copy example 2</p></div> <p style="text-align: center;"><b>Figure 1-3-10</b></p> <ol style="list-style-type: none"><li>7. Press the start key. The value is set.</li></ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U066</div><div>→</div><div>U403 (P.1-3-65)</div><div>→</div><div>U071 (P.1-3-28)</div><div>→</div><div>U404 (P.1-3-66)</div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	ADJUST DATA 1	Scanner leading edge registration	-45 to 45	0	0.11 mm	ADJUST DATA2	Scanner leading edge registration (rotate copying)	-45 to 45	0	0.10 mm
Display	Description	Setting range	Initial setting	Change in value per step												
ADJUST DATA 1	Scanner leading edge registration	-45 to 45	0	0.11 mm												
ADJUST DATA2	Scanner leading edge registration (rotate copying)	-45 to 45	0	0.10 mm												

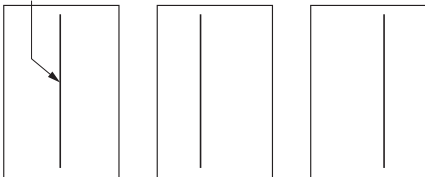
Maintenance item No.	Description																			
U067	<b>Adjusting the scanner center line</b>																			
	<b>Description</b>																			
	Adjusts the scanner center line of the original scanning.																			
	<b>Purpose</b>																			
	Make the adjustment if there is a regular error between the center lines of the copy image and original.																			
	<b>Adjustment</b>																			
	1. Press the start key.																			
	2. Select the item to be adjusted.																			
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>ADJUST DATA 1</td><td>Scanner center line</td><td>-70 to 70</td><td>0</td><td>0.08 mm</td></tr><tr><td>ADJUST DATA2</td><td>Scanner center line (rotate copying)</td><td>-25 to 25</td><td>0</td><td>0.10 mm</td></tr></table>					Display	Description	Setting range	Initial setting	Change in value per step	ADJUST DATA 1	Scanner center line	-70 to 70	0	0.08 mm	ADJUST DATA2	Scanner center line (rotate copying)	-25 to 25	0	0.10 mm
	Display	Description	Setting range	Initial setting	Change in value per step															
ADJUST DATA 1	Scanner center line	-70 to 70	0	0.08 mm																
ADJUST DATA2	Scanner center line (rotate copying)	-25 to 25	0	0.10 mm																
3. Press the system menu key.																				
4. Place an original and press the start key to make a test copy.																				
5. Press the system menu key.																				
6. Change the setting value using the +/- or numeric keys.																				
For copy example 1, increase the value. For copy example 2, decrease the value.																				
<div><div>Scanner center line</div><div></div></div>																				
<b>Figure 1-3-11</b>																				
7. Press the start key. The value is set.																				
<b>Caution</b>																				
Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.																				
<div><div>U067</div><div>→</div><div>U403 (P.1-3-65)</div><div>→</div><div>U072 (P.1-3-30)</div><div>→</div><div>U404 (P.1-3-66)</div></div>																				
<b>Completion</b>																				
Press the stop key. The screen for selecting a maintenance item No. is displayed.																				

Maintenance item No.	Description																								
U068	<b>Adjusting the scanning position for originals from the DP</b>																								
	<b>Description</b>																								
	Adjusts the position for scanning originals from the DP. Performs the test copy at the five scanning positions after adjusting.																								
	<b>Purpose</b>																								
	Used when the image fogging occurs because the scanning position is not proper when the DP is used. Run U071 to adjust the timing of DP leading edge when the scanning position is changed.																								
	<b>Setting</b>																								
	1. Press the start key.																								
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>ADJUST DATA</td><td>Starting position adjustment for scanning originals</td><td>-55 to 55</td><td>0</td><td>0.11 mm</td></tr><tr><td>TEST POSITION</td><td>Scanning position for the test copy originals</td><td>0 to 3</td><td>0</td><td>0.71 mm</td></tr></table>					Display	Description	Setting range	Initial setting	Change in value per step	ADJUST DATA	Starting position adjustment for scanning originals	-55 to 55	0	0.11 mm	TEST POSITION	Scanning position for the test copy originals	0 to 3	0	0.71 mm					
	Display	Description	Setting range	Initial setting	Change in value per step																				
	ADJUST DATA	Starting position adjustment for scanning originals	-55 to 55	0	0.11 mm																				
	TEST POSITION	Scanning position for the test copy originals	0 to 3	0	0.71 mm																				
	2. Select [ADJUST DATA] of the screen for selecting an item.																								
	3. Change the setting using the +/- or numeric keys.																								
When the setting value is increased, the scanning position moves to the right and it moves to the left when the setting value is decreased.																									
4. Press the start key. The value is set.																									
5. Select [TEST POSITION] of the screen for selecting an item.																									
6. Select the Scanning position using the +/- or numeric keys.																									
7. Press the start key. The value is set.																									
8. Set the original (the one which density is known) in the DP and press the system menu key. The screen for the test copy mode is displayed.																									
9. Press the start key. Test copy is executed.																									
10. Perform the test copy at each scanning position with the setting value from 0 to 4 and check that no black line appears and the image is normally scanned.																									
<b>Completion</b>																									
Press the stop key. The screen for selecting a maintenance item No. is displayed.																									
U070	<b>Adjusting the DP magnification</b>																								
	<b>Description</b>																								
	Adjusts the DP original scanning speed.																								
	<b>Purpose</b>																								
	Make the adjustment if the magnification is incorrect in the main scanning direction or auxiliary scanning direction when the optional DP is used.																								
	<b>Method</b>																								
	1. Press the start key.																								
	2. Select the item to be adjusted.																								
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>CIS MAIN ADJ</td><td>Magnification in the main scanning direction of CIS</td><td>-25 to 25</td><td>0</td><td>0.1 %</td></tr><tr><td>CONVEY SPEED</td><td>Magnification in the auxiliary scanning direction of CCD</td><td>-25 to 25</td><td>0</td><td>0.1 %</td></tr><tr><td>CIS SUB ADJ</td><td>Magnification in the auxiliary scanning direction of CIS</td><td>-15 to 10</td><td>0</td><td>0.05 %</td></tr></table>					Display	Description	Setting range	Initial setting	Change in value per step	CIS MAIN ADJ	Magnification in the main scanning direction of CIS	-25 to 25	0	0.1 %	CONVEY SPEED	Magnification in the auxiliary scanning direction of CCD	-25 to 25	0	0.1 %	CIS SUB ADJ	Magnification in the auxiliary scanning direction of CIS	-15 to 10	0	0.05 %
	Display	Description	Setting range	Initial setting	Change in value per step																				
	CIS MAIN ADJ	Magnification in the main scanning direction of CIS	-25 to 25	0	0.1 %																				
	CONVEY SPEED	Magnification in the auxiliary scanning direction of CCD	-25 to 25	0	0.1 %																				
	CIS SUB ADJ	Magnification in the auxiliary scanning direction of CIS	-15 to 10	0	0.05 %																				

Maintenance item No.	Description
U070	<p><b>Adjustment: main scanning direction of CIS</b></p> <ol style="list-style-type: none"> <li>1. Press the system menu key.</li> <li>2. Place an original on the DP and press the start key to make a test copy.</li> <li>3. Press the system menu key.</li> <li>4. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li> </ol> <div style="text-align: center;">  <p>Original      Copy example 1      Copy example 2</p> </div> <p style="text-align: center;"><b>Figure 1-3-12</b></p> <ol style="list-style-type: none"> <li>5. Press the start key. The value is set.</li> </ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div style="text-align: center;">  </div> <p><b>Adjustment: auxiliary scanning direction of CCD/CIS</b></p> <ol style="list-style-type: none"> <li>1. Press the system menu key.</li> <li>2. Place an original on the DP and press the start key to make a test copy.</li> <li>3. Press the system menu key.</li> <li>4. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li> </ol> <div style="text-align: center;">  <p>Original      Copy example 1      Copy example 2</p> </div> <p style="text-align: center;"><b>Figure 1-3-13</b></p> <ol style="list-style-type: none"> <li>5. Press the start key. The value is set.</li> </ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div style="text-align: center;">  </div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>

Maintenance item No.	Description																														
U071	<p><b>Adjusting the DP scanning timing</b></p> <p><b>Description</b> Adjusts the DP original scanning timing.</p> <p><b>Purpose</b> Make the adjustment if there is a regular error between the leading or trailing edges of the original and the copy image when the optional DP is used.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>ADJUST DATA1</td><td>Leading edge registration (first page)</td><td>-32 to 32</td><td>0</td><td>0.09 mm</td></tr><tr><td>ADJUST DATA2</td><td>Trailing edge registration (first page)</td><td>-32 to 32</td><td>0</td><td>0.09 mm</td></tr><tr><td>ADJUST DATA3</td><td>Leading edge registration (second page)</td><td>-45 to 45</td><td>0</td><td>0.09 mm</td></tr><tr><td>ADJUST DATA4</td><td>Trailing edge registration (second page)</td><td>-45 to 45</td><td>0</td><td>0.09 mm</td></tr><tr><td>ADJUST DATA5</td><td>Leading edge registration (rotate copying)</td><td>-20 to 20</td><td>0</td><td>0.17 mm</td></tr></table> <p><b>Adjustment: leading edge registration</b></p> <ol style="list-style-type: none"><li>1. Press the system menu key.</li><li>2. Place an original on the DP and press the start key to make a test copy.</li><li>3. Press the system menu key.</li><li>4. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li></ol> <div><div> Original</div><div> Copy example 1</div><div> Copy example 2</div></div> <p><b>Figure 1-3-14</b></p> <ol style="list-style-type: none"><li>5. Press the start key. The value is set.</li></ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U071</div><div>→</div><div>U404 (P.1-3-66)</div></div>	Display	Description	Setting range	Initial setting	Change in value per step	ADJUST DATA1	Leading edge registration (first page)	-32 to 32	0	0.09 mm	ADJUST DATA2	Trailing edge registration (first page)	-32 to 32	0	0.09 mm	ADJUST DATA3	Leading edge registration (second page)	-45 to 45	0	0.09 mm	ADJUST DATA4	Trailing edge registration (second page)	-45 to 45	0	0.09 mm	ADJUST DATA5	Leading edge registration (rotate copying)	-20 to 20	0	0.17 mm
Display	Description	Setting range	Initial setting	Change in value per step																											
ADJUST DATA1	Leading edge registration (first page)	-32 to 32	0	0.09 mm																											
ADJUST DATA2	Trailing edge registration (first page)	-32 to 32	0	0.09 mm																											
ADJUST DATA3	Leading edge registration (second page)	-45 to 45	0	0.09 mm																											
ADJUST DATA4	Trailing edge registration (second page)	-45 to 45	0	0.09 mm																											
ADJUST DATA5	Leading edge registration (rotate copying)	-20 to 20	0	0.17 mm																											

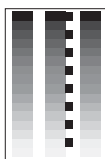

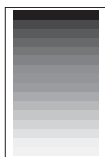
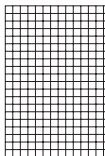
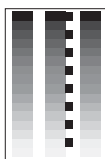

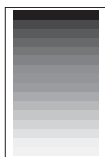
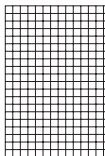
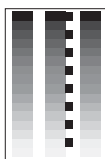

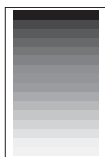
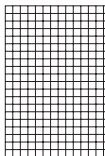
Maintenance item No.	Description
U071	<p><b>Adjustment: trailing edge registration</b></p> <ol style="list-style-type: none"> <li>1. Press the system menu key.</li> <li>2. Place an original on the DP and press the start key to make a test copy.</li> <li>3. Press the system menu key.</li> <li>4. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 3, decrease the value.</li> </ol> <div> </div> <p style="text-align: center;"><b>Figure 1-3-15</b></p> <ol style="list-style-type: none"> <li>5. Press the start key. The value is set.</li> </ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div> <pre> graph LR     U071[U071] --&gt; U404[U404 (P.1-3-66)]   </pre> </div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>

Maintenance item No.	Description																				
U072	<p><b>Adjusting the DP center line</b></p> <p><b>Description</b> Adjusts the scanning start position for the DP original.</p> <p><b>Purpose</b> Make the adjustment if there is a regular error between the centers of the original and the copy image when the optional DP is used.</p> <p><b>Adjustment</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>ADJUST DATA1</td><td>Center line for the simplex copy mode</td><td>-39 to 39</td><td>0</td><td>0.17 mm</td></tr><tr><td>ADJUST DATA2</td><td>Center line for the duplex copy mode</td><td>-39 to 39</td><td>0</td><td>0.17 mm</td></tr><tr><td>ADJUST DATA3</td><td>Center line for rotate copying</td><td>-7 to 7</td><td>0</td><td>0.17 mm</td></tr></table> <ol style="list-style-type: none"><li>3. Press the system menu key.</li><li>4. Place an original on the DP and press the start key to make a test copy.</li><li>5. Press the system menu key.</li><li>6. Change the setting value using the +/- or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</li></ol> <div><p>Reference</p><p>Original      Copy example 1      Copy example 2</p></div> <p><b>Figure 1-3-16</b></p> <ol style="list-style-type: none"><li>7. Press the start key. The value is set.</li></ol> <p><b>Caution</b> Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U072</div><div>→</div><div>U404 (P.1-3-66)</div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	ADJUST DATA1	Center line for the simplex copy mode	-39 to 39	0	0.17 mm	ADJUST DATA2	Center line for the duplex copy mode	-39 to 39	0	0.17 mm	ADJUST DATA3	Center line for rotate copying	-7 to 7	0	0.17 mm
Display	Description	Setting range	Initial setting	Change in value per step																	
ADJUST DATA1	Center line for the simplex copy mode	-39 to 39	0	0.17 mm																	
ADJUST DATA2	Center line for the duplex copy mode	-39 to 39	0	0.17 mm																	
ADJUST DATA3	Center line for rotate copying	-7 to 7	0	0.17 mm																	

Maintenance item No.	Description																																																						
U073	<p><b>Checking scanner operation</b></p> <p><b>Description</b> Simulates the scanner operation under arbitrary conditions.</p> <p><b>Purpose</b> To check scanner operation.</p> <p><b>Start</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be operated.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>SCANNER MOTOR</td><td>Scanner operation</td></tr><tr><td>HOME POSITION</td><td>Home position operation</td></tr><tr><td>DP READING</td><td>DP scanning position operation</td></tr><tr><td>DUST CHECK</td><td>Dust adhesion check operation with lamp on</td></tr></table> <p><b>Setting: SCANNER MOTOR</b></p> <ol style="list-style-type: none"><li>1. Select [SCANNER MOTOR].</li><li>2. Select the item.</li><li>3. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Operating conditions</th><th>Setting range</th></tr><tr><td>ZOOM</td><td>Magnification</td><td>25 to 400%</td></tr><tr><td>SIZE</td><td>Original size</td><td>See below.</td></tr><tr><td>LAMP</td><td>On and off of the exposure lamp</td><td>0 (off) or 1 (on)</td></tr></table> <p>Original sizes for each setting in SIZE</p> <table><tr><th>Setting</th><th>Paper size</th><th>Setting</th><th>Paper size</th></tr><tr><td>5000</td><td>A4</td><td>5000</td><td>A5R</td></tr><tr><td>4300</td><td>B5</td><td>7800</td><td>Folio</td></tr><tr><td>5100</td><td>11" x 8 1/2"</td><td>10200</td><td>11" x 17"</td></tr><tr><td>10000</td><td>A3</td><td>9000</td><td>11" x 15"</td></tr><tr><td>8600</td><td>B4</td><td>8400</td><td>8 1/2" x 14"</td></tr><tr><td>7100</td><td>A4R</td><td>6600</td><td>8 1/2" x 11"</td></tr><tr><td>6100</td><td>B5R</td><td>5100</td><td>5 1/2" x 8 1/2"</td></tr></table> <ol style="list-style-type: none"><li>4. Press the start key. Scanning starts under the selected conditions.</li><li>5. To stop operation, press the stop key.</li></ol> <p><b>Method: HOME POSITION</b></p> <ol style="list-style-type: none"><li>1. Select [HOME POSITION].</li><li>2. Press the start key. The mirror frame of the scanner moves to the home position.</li></ol> <p><b>Method: DP READING</b></p> <ol style="list-style-type: none"><li>1. Select [DP READING].</li><li>2. Press the start key. The mirror frame of the scanner moves to the reading position.</li></ol> <p><b>Method: DUST CHECK</b></p> <ol style="list-style-type: none"><li>1. Select [DUST CHECK].</li><li>2. Press the start key. The exposure lamp lights.</li><li>3. To turn the exposure lamp off, press the stop key.</li></ol> <p><b>Completion</b> Press the stop key when scanning stops. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	SCANNER MOTOR	Scanner operation	HOME POSITION	Home position operation	DP READING	DP scanning position operation	DUST CHECK	Dust adhesion check operation with lamp on	Display	Operating conditions	Setting range	ZOOM	Magnification	25 to 400%	SIZE	Original size	See below.	LAMP	On and off of the exposure lamp	0 (off) or 1 (on)	Setting	Paper size	Setting	Paper size	5000	A4	5000	A5R	4300	B5	7800	Folio	5100	11" x 8 1/2"	10200	11" x 17"	10000	A3	9000	11" x 15"	8600	B4	8400	8 1/2" x 14"	7100	A4R	6600	8 1/2" x 11"	6100	B5R	5100	5 1/2" x 8 1/2"
Display	Description																																																						
SCANNER MOTOR	Scanner operation																																																						
HOME POSITION	Home position operation																																																						
DP READING	DP scanning position operation																																																						
DUST CHECK	Dust adhesion check operation with lamp on																																																						
Display	Operating conditions	Setting range																																																					
ZOOM	Magnification	25 to 400%																																																					
SIZE	Original size	See below.																																																					
LAMP	On and off of the exposure lamp	0 (off) or 1 (on)																																																					
Setting	Paper size	Setting	Paper size																																																				
5000	A4	5000	A5R																																																				
4300	B5	7800	Folio																																																				
5100	11" x 8 1/2"	10200	11" x 17"																																																				
10000	A3	9000	11" x 15"																																																				
8600	B4	8400	8 1/2" x 14"																																																				
7100	A4R	6600	8 1/2" x 11"																																																				
6100	B5R	5100	5 1/2" x 8 1/2"																																																				

Maintenance item No.	Description																
U074	<p><b>Adjusting the DP input light luminosity</b></p> <p><b>Description</b> Adjusts the luminosity of the exposure lamp for scanning originals from the DP.</p> <p><b>Purpose</b> Used if the exposure amount differs significantly between when scanning an original on the contact glass and when scanning an original from the DP.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>R</td><td>DP input light luminosity of R image</td><td>-12 to 12</td><td>0</td></tr><tr><td>G</td><td>DP input light luminosity of G image</td><td>-12 to 12</td><td>0</td></tr><tr><td>B</td><td>DP input light luminosity of B image</td><td>-12 to 12</td><td>0</td></tr></table> <ol style="list-style-type: none"><li>3. Change the setting using the +/- or numeric keys. Increasing the setting makes the luminosity higher, and decreasing it makes the luminosity lower.</li><li>4. Press the start key. The value is set.</li></ol> <p><b>Supplement</b> While this maintenance item is being executed, copying from an original is available in the interrupt copying mode.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	R	DP input light luminosity of R image	-12 to 12	0	G	DP input light luminosity of G image	-12 to 12	0	B	DP input light luminosity of B image	-12 to 12	0
Display	Description	Setting range	Initial setting														
R	DP input light luminosity of R image	-12 to 12	0														
G	DP input light luminosity of G image	-12 to 12	0														
B	DP input light luminosity of B image	-12 to 12	0														
U080	<p><b>Setting the economy mode</b></p> <p><b>Description</b> Sets the level in the economy mode.</p> <p><b>Purpose</b> To increase or decrease the image density in the eco-print mode.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select [ADJUST DATA].</li></ol> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Exposure is toner economy mode</td><td>-12 to 0</td><td>-6</td></tr></table> <ol style="list-style-type: none"><li>3. Change the setting value using the +/- or numeric keys. Increasing the setting makes the image darker; decreasing it makes the image lighter.</li><li>4. Press the start key. The value is set.</li></ol> <p><b>Supplement</b> While this maintenance item is being executed, copying from an original is available in the interrupt copying mode.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Description	Setting range	Initial setting	Exposure is toner economy mode	-12 to 0	-6										
Description	Setting range	Initial setting															
Exposure is toner economy mode	-12 to 0	-6															

Maintenance item No.	Description																						
U087	<p><b>Setting DP reading position modification operation</b></p> <p><b>Description</b></p> <p>The presence or absence of dust is determined by comparing the scan data of the original trailing edge and that taken after the original is conveyed past the DP original scanning position. If dust is identified, the DP original scanning position is adjusted for the following originals.</p> <p><b>Purpose</b></p> <p>When using optional DP, to solve the problem when black lines occurs due to the dust with respect to original reading position.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set. The setting screen for the selected item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>CCD</td><td>Setting of standard data when dust is detected.</td></tr><tr><td>BLACK</td><td>Initialization of original reading position.</td></tr></table> <p><b>Setting: standard data when dust is detected</b></p> <ol style="list-style-type: none"><li>1. Select the item to be set.</li><li>2. Change the value using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>CCD R</td><td>Lowest density of the R regard as the dust.</td><td>0 to 255</td><td>175</td></tr><tr><td>CCD G</td><td>Lowest density of the G regard as the dust.</td><td>0 to 255</td><td>170</td></tr><tr><td>CCD B</td><td>Lowest density of the B regard as the dust.</td><td>0 to 255</td><td>160</td></tr></table> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li></ol> <p><b>Setting: Initialization of original reading position</b></p> <ol style="list-style-type: none"><li>1. Select [CLEAR].</li><li>2. Press the start key. The setting is cleared.</li></ol> <p><b>Completion</b></p> <p>Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	CCD	Setting of standard data when dust is detected.	BLACK	Initialization of original reading position.	Display	Description	Setting range	Initial setting	CCD R	Lowest density of the R regard as the dust.	0 to 255	175	CCD G	Lowest density of the G regard as the dust.	0 to 255	170	CCD B	Lowest density of the B regard as the dust.	0 to 255	160
Display	Description																						
CCD	Setting of standard data when dust is detected.																						
BLACK	Initialization of original reading position.																						
Display	Description	Setting range	Initial setting																				
CCD R	Lowest density of the R regard as the dust.	0 to 255	175																				
CCD G	Lowest density of the G regard as the dust.	0 to 255	170																				
CCD B	Lowest density of the B regard as the dust.	0 to 255	160																				

Maintenance item No.	Description																								
U089	<p><b>Outputting a MIP-PG pattern</b></p> <p><b>Description</b> Selects and outputs the MIP-PG pattern created in the machine.</p> <p><b>Purpose</b> To check copier status other than scanner when adjusting image printing, using MIP-PG pattern output (without scanning).</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the MIP-PG pattern to be output.</li></ol> <table><tr><th>Display</th><th>PG pattern to be output</th><th>Purpose</th></tr><tr><td>GRAYSCALE</td><td></td><td>To check the laser scanner unit engine output characteristics.</td></tr><tr><td>MONO-LEVEL</td><td></td><td>To check the drum quality.</td></tr><tr><td>256-LEVEL</td><td></td><td>To check resolution reproducibility in printing.</td></tr><tr><td>1 dot-LINE</td><td></td><td>To check fine line reproducibility. To adjust the position of the laser scanner unit (lateral squareness)</td></tr></table> <ol style="list-style-type: none"><li>3. To change the output conditions of MONO-LEVEL and 1dot-LINE, use the +/- or numeric keys to change the preset values and press the start key to register the setting.</li></ol> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Output density of MONO-LEVEL</td><td>0 to 255</td><td>0</td></tr><tr><td>1dot-LINE</td><td>0 to 21</td><td>0</td></tr></table> <ol style="list-style-type: none"><li>4. Press the system menu key.</li><li>5. Press the start key. A MIP-PG pattern is output.</li><li>6. To return to the screen for selecting an item, press the system menu key.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	PG pattern to be output	Purpose	GRAYSCALE		To check the laser scanner unit engine output characteristics.	MONO-LEVEL		To check the drum quality.	256-LEVEL		To check resolution reproducibility in printing.	1 dot-LINE		To check fine line reproducibility. To adjust the position of the laser scanner unit (lateral squareness)	Description	Setting range	Initial setting	Output density of MONO-LEVEL	0 to 255	0	1dot-LINE	0 to 21	0
Display	PG pattern to be output	Purpose																							
GRAYSCALE		To check the laser scanner unit engine output characteristics.																							
MONO-LEVEL		To check the drum quality.																							
256-LEVEL		To check resolution reproducibility in printing.																							
1 dot-LINE		To check fine line reproducibility. To adjust the position of the laser scanner unit (lateral squareness)																							
Description	Setting range	Initial setting																							
Output density of MONO-LEVEL	0 to 255	0																							
1dot-LINE	0 to 21	0																							

Maintenance item No.	Description																																
U093	<p><b>Setting the exposure density gradient</b></p> <p><b>Description</b> Changes the exposure density gradient in the manual density mode, depending on respective image quality modes.</p> <p><b>Purpose</b> To set how the image density is altered by a change of one step in the manual density adjustment for respective image quality modes. Also used to make copy images darker or lighter.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the image quality mode. The setting screen for the selected item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>MIXED</td><td>Density in text and photo mode</td></tr><tr><td>TEXT</td><td>Density in text mode</td></tr><tr><td>PHOTO</td><td>Density in photo mode</td></tr></table> <p><b>Setting: Density in text and photo mode</b></p> <ol style="list-style-type: none"><li>1. Select the item to be set.</li><li>2. Adjust the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>MIXED DARKER</td><td>Change in density when manual density is set dark</td><td>0 to 3</td><td>0</td></tr><tr><td>MIXED LIGHTER</td><td>Change in density when manual density is set light</td><td>0 to 3</td><td>0</td></tr></table> <p>Increasing the setting makes the change in density larger, and decreasing it makes the change smaller.</p> <p><b>Figure 1-3-17</b></p> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol> <p><b>Setting: Density in text mode</b></p> <ol style="list-style-type: none"><li>1. Select the item to be set.</li><li>2. Adjust the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>TEXT DARKER</td><td>Change in density when manual density is set dark</td><td>0 to 3</td><td>0</td></tr><tr><td>TEXT LIGHTER</td><td>Change in density when manual density is set light</td><td>0 to 3</td><td>0</td></tr></table> <p>Increasing the setting makes the change in density larger, and decreasing it makes the change smaller.</p> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol>	Display	Description	MIXED	Density in text and photo mode	TEXT	Density in text mode	PHOTO	Density in photo mode	Display	Description	Setting range	Initial setting	MIXED DARKER	Change in density when manual density is set dark	0 to 3	0	MIXED LIGHTER	Change in density when manual density is set light	0 to 3	0	Display	Description	Setting range	Initial setting	TEXT DARKER	Change in density when manual density is set dark	0 to 3	0	TEXT LIGHTER	Change in density when manual density is set light	0 to 3	0
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Maintenance item No.	Description												
U093	<p><b>Setting: Density in photo mode</b></p> <p>1. Select the item to be set.</p> <p>2. Adjust the setting using the +/- or numeric keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>PHOTO DARKER</td><td>Change in density when manual density is set dark</td><td>0 to 3</td><td>0</td></tr><tr><td>PHOTO LIGHTER</td><td>Change in density when manual density is set light</td><td>0 to 3</td><td>0</td></tr></table> <p>Increasing the setting makes the change in density larger, and decreasing it makes the change smaller.</p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p> <p><b>Supplement</b></p> <p>While this maintenance item is being executed, copying from an original is available in the interrupt copying mode.</p> <p><b>Completion</b></p> <p>Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	PHOTO DARKER	Change in density when manual density is set dark	0 to 3	0	PHOTO LIGHTER	Change in density when manual density is set light	0 to 3	0
Display	Description	Setting range	Initial setting										
PHOTO DARKER	Change in density when manual density is set dark	0 to 3	0										
PHOTO LIGHTER	Change in density when manual density is set light	0 to 3	0										

Maintenance item No.	Description																																																						
U099	<p><b>Adjusting original size detection</b></p> <p><b>Description</b> Checks the operation of the original size detection sensor and sets the sensing threshold value.</p> <p><b>Purpose</b> To adjust the sensitiveness of the sensor and size judgement time if the original size detection sensor mal- functions frequently due to incident light or the like.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item. The screen for executing each item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>DATA</td><td>Displaying detection sensor transmission data</td></tr><tr><td>B/W LEVEL</td><td>Setting detection sensor threshold value Setting original size judgment time</td></tr></table> <p><b>Method to display the data for the sensor</b></p> <ol style="list-style-type: none"><li>1. Place the original and close the original cover or DP. The detection sensor transmission data is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>ORIGINAL AREA R</td><td>Detected original width size (R)</td></tr><tr><td>ORIGINAL AREA G</td><td>Detected original width size (G)</td></tr><tr><td>ORIGINAL AREA B</td><td>Detected original width size (B)</td></tr><tr><td>ORIGINAL AREA</td><td>Detected original width size</td></tr><tr><td>SIZE SW L</td><td>Displays the original detection switch ON/OFF</td></tr></table> <ol style="list-style-type: none"><li>2. To return to the screen for selecting an item, press the stop key.</li></ol> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Select an item to be set.</li><li>2. Adjust the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>ORIGINAL R</td><td>Original threshold value (R)</td><td>0 to 255</td><td>105</td></tr><tr><td>ORIGINAL G</td><td>Original threshold value (G)</td><td>0 to 255</td><td>105</td></tr><tr><td>ORIGINAL B</td><td>Original threshold value (B)</td><td>0 to 255</td><td>105</td></tr><tr><td>LIGHT SOURCE R</td><td>Light source threshold value (R)</td><td>0 to 255</td><td>60</td></tr><tr><td>LIGHT SOURCE G</td><td>Light source threshold value (G)</td><td>0 to 255</td><td>60</td></tr><tr><td>LIGHT SOURCE B</td><td>Light source threshold value (B)</td><td>0 to 255</td><td>60</td></tr><tr><td>WAIT TIME</td><td>Time from activation of the original detection switch (ODSW) to original size judgment</td><td>0 to 255</td><td>150</td></tr><tr><td>A4R AREA</td><td>Original size detection position display (mm)</td><td>220/240</td><td>240</td></tr></table> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	DATA	Displaying detection sensor transmission data	B/W LEVEL	Setting detection sensor threshold value Setting original size judgment time	Display	Description	ORIGINAL AREA R	Detected original width size (R)	ORIGINAL AREA G	Detected original width size (G)	ORIGINAL AREA B	Detected original width size (B)	ORIGINAL AREA	Detected original width size	SIZE SW L	Displays the original detection switch ON/OFF	Display	Description	Setting range	Initial setting	ORIGINAL R	Original threshold value (R)	0 to 255	105	ORIGINAL G	Original threshold value (G)	0 to 255	105	ORIGINAL B	Original threshold value (B)	0 to 255	105	LIGHT SOURCE R	Light source threshold value (R)	0 to 255	60	LIGHT SOURCE G	Light source threshold value (G)	0 to 255	60	LIGHT SOURCE B	Light source threshold value (B)	0 to 255	60	WAIT TIME	Time from activation of the original detection switch (ODSW) to original size judgment	0 to 255	150	A4R AREA	Original size detection position display (mm)	220/240	240
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LIGHT SOURCE G	Light source threshold value (G)	0 to 255	60																																																				
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A4R AREA	Original size detection position display (mm)	220/240	240																																																				

Maintenance item No.	Description																								
U100	<p><b>Setting the main high voltage</b></p> <p><b>Description</b> Performs main charging.</p> <p><b>Purpose</b> To check main charging.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be operated. The selected operation starts.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>MC ON</td><td>Turning the main charger on</td></tr><tr><td>LASER ON/OFF</td><td>Turning the main charger on and the laser scanner unit on and off</td></tr></table> <ol style="list-style-type: none"><li>3. To stop operation, press the stop key.</li></ol> <p><b>Completion</b> Press the stop key when main charger output stops. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MC ON	Turning the main charger on	LASER ON/OFF	Turning the main charger on and the laser scanner unit on and off																		
Display	Description																								
MC ON	Turning the main charger on																								
LASER ON/OFF	Turning the main charger on and the laser scanner unit on and off																								
U101	<p><b>Setting the other high voltages</b></p> <p><b>Description</b> Sets the developing bias control voltage, the transfer control voltage, and the separation control voltage or checks the output of these voltages.</p> <p><b>Purpose</b> To check the developing bias, the transfer voltage and the separation voltage or to take measures against drop of image density or background fog.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set.</li><li>3. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>DEV BIAS</td><td>Developing bias AC component frequency at image formation</td><td>20 to 32</td><td>28</td></tr><tr><td>DEV SBIAS</td><td>Developing shift bias potential at image formation</td><td>0 to 3</td><td>2</td></tr><tr><td>DEV DUTY</td><td>Developing bias AC component duty at image formation</td><td>0 to 100</td><td>50</td></tr><tr><td>TC DATA</td><td>Transfer control voltage</td><td>0 to 300</td><td>130</td></tr><tr><td>SC DATA</td><td>Separation control voltage</td><td>0 to 60</td><td>20</td></tr></table> <p>Increasing the DEV BIAS setting makes the image darker; decreasing it makes the image lighter. Increasing the DEV SBIAS setting makes the image darker. Increasing the DEV DUTY setting makes the image lighter; decreasing it makes the image darker. Increasing the TC DATA setting makes the transfer voltage higher, and decreasing it makes the voltage lower. Increasing the SC DATA setting makes the separation voltage higher, and decreasing it makes the voltage lower.</p> <ol style="list-style-type: none"><li>4. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	DEV BIAS	Developing bias AC component frequency at image formation	20 to 32	28	DEV SBIAS	Developing shift bias potential at image formation	0 to 3	2	DEV DUTY	Developing bias AC component duty at image formation	0 to 100	50	TC DATA	Transfer control voltage	0 to 300	130	SC DATA	Separation control voltage	0 to 60	20
Display	Description	Setting range	Initial setting																						
DEV BIAS	Developing bias AC component frequency at image formation	20 to 32	28																						
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DEV DUTY	Developing bias AC component duty at image formation	0 to 100	50																						
TC DATA	Transfer control voltage	0 to 300	130																						
SC DATA	Separation control voltage	0 to 60	20																						

Maintenance item No.	Description												
U102	<p><b>Setting the cleaning interval for the main charger</b></p> <p><b>Description</b> Changes the intervals at which the main charger is cleaned.</p> <p><b>Purpose</b> To change the setting when the background is visible.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Main charger cleaning operation intervals</td><td>0 to 20 (unit: 1000 sheets)</td><td>5</td></tr></table> <p>When set to 0, the cleaning for the main charger is not operated.</p> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Description	Setting range	Initial setting	Main charger cleaning operation intervals	0 to 20 (unit: 1000 sheets)	5						
Description	Setting range	Initial setting											
Main charger cleaning operation intervals	0 to 20 (unit: 1000 sheets)	5											
U109	<p><b>Displaying the drum type</b></p> <p><b>Description</b> Displays the drum surface potential set as EEPROM of the drum unit.</p> <p><b>Purpose</b> To check the drum surface potential.</p> <p><b>Method</b> Press the start key. Drum surface potential (V) is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>												
U110	<p><b>Checking the drum count</b></p> <p><b>Description</b> Displays the drum counts for checking.</p> <p><b>Purpose</b> To check the drum status.</p> <p><b>Method</b> Press the start key. The drum counter count is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Change the setting using the +/- or numeric keys.</li><li>2. Press the start key. The count is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>												
U112	<p><b>Setting toner refresh operation</b></p> <p><b>Description</b> Sets the toner refresh operation time and the developing bias on time at power on and after copying.</p> <p><b>Purpose</b> To change the toner refresh operation time and the developing bias on time at power on and after copying if image flow level is low.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set.</li><li>3. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>ON TIME(SEC)</td><td>Toner refresh operation time</td><td>50 to 150 (sec)</td><td>120</td></tr><tr><td>BIAS TIME(MSEC)</td><td>Developing bias on time</td><td>500 to 1000 (msec)</td><td>700 (30 ppm) 540 (40/50 ppm)</td></tr></table> <ol style="list-style-type: none"><li>4. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	ON TIME(SEC)	Toner refresh operation time	50 to 150 (sec)	120	BIAS TIME(MSEC)	Developing bias on time	500 to 1000 (msec)	700 (30 ppm) 540 (40/50 ppm)
Display	Description	Setting range	Initial setting										
ON TIME(SEC)	Toner refresh operation time	50 to 150 (sec)	120										
BIAS TIME(MSEC)	Developing bias on time	500 to 1000 (msec)	700 (30 ppm) 540 (40/50 ppm)										

Maintenance item No.	Description								
<b>U114</b>	<p><b>Setting separation charger mode</b></p> <p><b>Description</b> Sets the separation charger mode.</p> <p><b>Purpose</b> To change the setting if the fuser offset or carrier leaking occurs.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the mode.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MODE0</td><td>Complete separation mode</td></tr> <tr> <td>MODE1</td><td>Edging separation mode</td></tr> <tr> <td>MODE2</td><td>Switches complete and edging separation mode with environmental temperature.</td></tr> </tbody> </table> <p>Initial setting: MODE1</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MODE0	Complete separation mode	MODE1	Edging separation mode	MODE2	Switches complete and edging separation mode with environmental temperature.
Display	Description								
MODE0	Complete separation mode								
MODE1	Edging separation mode								
MODE2	Switches complete and edging separation mode with environmental temperature.								
<b>U117</b>	<p><b>Checking the drum number</b></p> <p><b>Description</b> Displays the drum number.</p> <p><b>Purpose</b> To check the drum number.</p> <p><b>Method</b> Press the start key. The drum number is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>								
<b>U118</b>	<p><b>Displaying the drum history</b></p> <p><b>Description</b> Displays the past record of machine number and the drum counter.</p> <p><b>Purpose</b> To check the count value of machine number and the drum counter.</p> <p><b>Method</b> Press the start key. Past record of 5 cases is displayed.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MACHINE No.1 to 5</td><td>Past record of machine number</td></tr> <tr> <td>COUNT 1 to 5</td><td>Past record of drum counter</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MACHINE No.1 to 5	Past record of machine number	COUNT 1 to 5	Past record of drum counter		
Display	Description								
MACHINE No.1 to 5	Past record of machine number								
COUNT 1 to 5	Past record of drum counter								
<b>U130</b>	<p><b>Initial setting for the developing unit</b></p> <p><b>Description</b> Replenishes toner to the developing unit to a certain level from the toner container that has been installed.</p> <p><b>Purpose</b> To operate when installing the machine or replacing the developing unit.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key. The screen for executing is displayed.</li> <li>2. Press the start key. Toner installation is started and the output value of the sensor and execution time are displayed.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>TONER SENSOR</td><td>Output value of the sensor</td></tr> <tr> <td>TIME(SEC)</td><td>Execution time</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key after initial setting is complete. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	TONER SENSOR	Output value of the sensor	TIME(SEC)	Execution time		
Display	Description								
TONER SENSOR	Output value of the sensor								
TIME(SEC)	Execution time								

Maintenance item No.	Description														
<b>U144</b>	<p><b>Setting toner loading operation</b></p> <p><b>Description</b> Sets toner loading operation after completion of copying.</p> <p><b>Purpose</b> To set whether or not toner is loaded on the drum after low density copying. Normally no change is necessary from the initial setting.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to be set.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MODE0</td><td>Toner not loaded</td></tr> <tr> <td>MODE1</td><td>Toner loaded after simplex or duplex copying</td></tr> <tr> <td>MODE2</td><td>Toner loaded after simplex copying</td></tr> </tbody> </table> <p>Initial setting: MODE2</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MODE0	Toner not loaded	MODE1	Toner loaded after simplex or duplex copying	MODE2	Toner loaded after simplex copying						
Display	Description														
MODE0	Toner not loaded														
MODE1	Toner loaded after simplex or duplex copying														
MODE2	Toner loaded after simplex copying														
<b>U150</b>	<p><b>Checking sensors for toner</b></p> <p><b>Description</b> Displays the on-off status of each sensor or switch related to toner.</p> <p><b>Purpose</b> To check if the sensors and switches operate correctly.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Turn each switch on and off manually to check the status.</li> </ol> <p>When the on-status of a switch is detected, that switch is displayed in reverse.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>DEVELOPER SENSOR</td><td>Toner sensor (TNS)</td></tr> <tr> <td>CONTAINER SET</td><td>Toner container detection switch (TCDSW)</td></tr> <tr> <td>CONTAINER SNSR</td><td>Toner container sensor (TCS)</td></tr> <tr> <td>WASTE BOX SET</td><td>Waste toner detection switch (WTDSW)</td></tr> <tr> <td>WASTE BOX SENSOR</td><td>Overflow sensor (OFS)</td></tr> <tr> <td>MOTOR ON</td><td>The toner feed solenoid (TNFSOL) and the paper feed motor (PFM) are turned on.</td></tr> </tbody> </table> <p>To stop motor driving, press [MOTOR ON] again</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches	DEVELOPER SENSOR	Toner sensor (TNS)	CONTAINER SET	Toner container detection switch (TCDSW)	CONTAINER SNSR	Toner container sensor (TCS)	WASTE BOX SET	Waste toner detection switch (WTDSW)	WASTE BOX SENSOR	Overflow sensor (OFS)	MOTOR ON	The toner feed solenoid (TNFSOL) and the paper feed motor (PFM) are turned on.
Display	Switches														
DEVELOPER SENSOR	Toner sensor (TNS)														
CONTAINER SET	Toner container detection switch (TCDSW)														
CONTAINER SNSR	Toner container sensor (TCS)														
WASTE BOX SET	Waste toner detection switch (WTDSW)														
WASTE BOX SENSOR	Overflow sensor (OFS)														
MOTOR ON	The toner feed solenoid (TNFSOL) and the paper feed motor (PFM) are turned on.														
<b>U157</b>	<p><b>Checking/clearing the developing drive time</b></p> <p><b>Description</b> Displays the developing drive time for checking, or clearing a figure, which is used as a reference when correcting the toner control.</p> <p><b>Purpose</b> To check the developing drive time after replacing the developing unit.</p> <p><b>Method</b> Press the start key. The developing drive time is displayed in minutes.</p> <p><b>Clearing</b></p> <ol style="list-style-type: none"> <li>1. Press the clear key.</li> <li>2. Press the start key. The time is cleared.</li> </ol> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Enter a drive time (in minutes) using the numeric keys.</li> <li>2. Press the start key. The time is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>														

Maintenance item No.	Description																
U158	<p><b>Checking the developing count</b></p> <p><b>Description</b> Displays the developing count for checking.</p> <p><b>Purpose</b> To check the developing count after replacing the developing unit.</p> <p><b>Method</b> Press the start key. The developing counter count is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Change the setting using the +/- or numeric keys.</li><li>2. Press the start key. The count is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																
U161	<p><b>Setting the fuser control temperature</b></p> <p><b>Description</b> Changes the fuser control temperature.</p> <p><b>Purpose</b> Normally no change is necessary. However, can be used to prevent curling or creasing of paper, or solve a fuser problem on thick paper.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set.</li><li>3. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>DRIVE START TEMP</td><td>Driving start temperature when warm-up starts</td><td>0 to 255 (°C)</td><td>175 (30 ppm) 185 (40/50 ppm)</td></tr><tr><td>READY CONTROL T</td><td>Control temperature for displaying [Ready for copying.]</td><td>0 to 255 (°C)</td><td>190 (30 ppm) 200 (40/50 ppm)</td></tr><tr><td>PRINT CONTROL T</td><td>Control temperature during printing</td><td>0 to 255 (°C)</td><td>190 (30 ppm) 200 (40/50 ppm)</td></tr></table> <ol style="list-style-type: none"><li>4. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	DRIVE START TEMP	Driving start temperature when warm-up starts	0 to 255 (°C)	175 (30 ppm) 185 (40/50 ppm)	READY CONTROL T	Control temperature for displaying [Ready for copying.]	0 to 255 (°C)	190 (30 ppm) 200 (40/50 ppm)	PRINT CONTROL T	Control temperature during printing	0 to 255 (°C)	190 (30 ppm) 200 (40/50 ppm)
Display	Description	Setting range	Initial setting														
DRIVE START TEMP	Driving start temperature when warm-up starts	0 to 255 (°C)	175 (30 ppm) 185 (40/50 ppm)														
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PRINT CONTROL T	Control temperature during printing	0 to 255 (°C)	190 (30 ppm) 200 (40/50 ppm)														
U163	<p><b>Resetting the fuser problem data</b></p> <p><b>Description</b> Resets the detection of a service call code indicating a problem in the fuser section.</p> <p><b>Purpose</b> To prevent accidents due to an abnormally high fuser temperature.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Press [EXECUTE] on the touch panel.</li><li>3. Press the start key. The fuser problem data is initialized.</li><li>4. Turn the main power switch off and on.</li></ol>																
U167	<p><b>Checking fuser counts</b></p> <p><b>Description</b> Displays fuser counts for checking.</p> <p><b>Purpose</b> To check fuser counts after replacing the fuser unit.</p> <p><b>Method</b> Press the start key. The fuser counts are displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Change the setting using the +/- or numeric keys.</li><li>2. Press the start key. The count is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																

Maintenance item No.	Description										
<b>U196</b>	<p><b>Turning the fuser heater on</b></p> <p><b>Description</b> Turns the fuser heater M or S on.</p> <p><b>Purpose</b> To check fuser heaters turning on.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the heater to be turned on. The selected heater turns on for 2 s and then turns off.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MAIN</td><td>Fuser heater M (FH-M)</td></tr> <tr> <td>SUB</td><td>Fuser heater S (FH-S)</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key when fuser heaters M and S are off. The screen for selecting the maintenance item No. is displayed.</p>	Display	Description	MAIN	Fuser heater M (FH-M)	SUB	Fuser heater S (FH-S)				
Display	Description										
MAIN	Fuser heater M (FH-M)										
SUB	Fuser heater S (FH-S)										
<b>U199</b>	<p><b>Checking the fuser temperature</b></p> <p><b>Description</b> Displays the fuser temperature, the ambient temperature and the absolute humidity.</p> <p><b>Purpose</b> To check the fuser temperature, the ambient temperature and the absolute humidity.</p> <p><b>Method</b> Press the start key. The fuser temperature and ambient temperature are displayed in centigrade (°C) and the absolute humidity is displayed in percentage (%).</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FIX CENTER TEMP</td><td>Fuser center temperature (°C)</td></tr> <tr> <td>FIX EDGE TEMP</td><td>Fuser edge temperature (°C)</td></tr> <tr> <td>SURROUND TEMP</td><td>Ambient temperature (°C)</td></tr> <tr> <td>HUMIDITY</td><td>Absolute humidity (%)</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	FIX CENTER TEMP	Fuser center temperature (°C)	FIX EDGE TEMP	Fuser edge temperature (°C)	SURROUND TEMP	Ambient temperature (°C)	HUMIDITY	Absolute humidity (%)
Display	Description										
FIX CENTER TEMP	Fuser center temperature (°C)										
FIX EDGE TEMP	Fuser edge temperature (°C)										
SURROUND TEMP	Ambient temperature (°C)										
HUMIDITY	Absolute humidity (%)										
<b>U200</b>	<p><b>Turning all LEDs on</b></p> <p><b>Description</b> Turns all the LEDs on the operation panel on.</p> <p><b>Purpose</b> To check if all the LEDs on the operation panel light.</p> <p><b>Method</b> Press the start key. All the LEDs on the operation panel light. Press the stop key or wait for 10 s. The LEDs turns off, and the screen for selecting a maintenance item No. is displayed.</p>										
<b>U201</b>	<p><b>Initializing the touch panel</b></p> <p><b>Description</b> Automatically correct the positions of the X- and Y-axes of the touch panel.</p> <p><b>Purpose</b> To automatically correct the display positions on the touch panel after it is replaced.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key. The + key displayed at the upper left of the touch panel flashes.</li> <li>2. Press on the center of the + key. The + key on lower right flashes.</li> <li>3. Press the center of the flashing + key.</li> </ol> <p>Initialization of the touch panel is complete, and the screen for selecting a maintenance item No. is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>										

Maintenance item No.	Description															
U202	<b>Setting the KMAS host monitoring system</b> <b>Description</b> Initializes or operates the KMAS host monitoring system. This is an optional device which is currently supported only by Japanese specification machines, so no setting is necessary.															
U203	<b>Checking DP operation</b> <b>Description</b> Simulates the original conveying operation separately in the optional DP. <b>Purpose</b> To check the DP operation. <b>Method</b> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Place an original in the DP if running this simulation with paper.</li><li>3. Select the item to be operated.</li><li>4. When selecting [TEST2], to set the magnification using the +/- keys.</li></ol> <table><tr><th>Display</th><th>Operation</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>TEST 1(NON P)</td><td>Without paper</td><td>-</td><td>-</td></tr><tr><td>TEST 2</td><td>With paper</td><td>100 to 200 (%)</td><td>100</td></tr></table> <ol style="list-style-type: none"><li>5. Press the start key. The operation starts.</li><li>6. To stop continuous operation, press the stop key.</li></ol> <b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.				Display	Operation	Setting range	Initial setting	TEST 1(NON P)	Without paper	-	-	TEST 2	With paper	100 to 200 (%)	100
Display	Operation	Setting range	Initial setting													
TEST 1(NON P)	Without paper	-	-													
TEST 2	With paper	100 to 200 (%)	100													
U204	<b>Setting the presence or absence of a key card or key counter</b> <b>Description</b> Sets the presence or absence of the optional key card or key counter. <b>Purpose</b> To run this maintenance item if a key card or key counter is installed. <b>Method</b> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set. The setting screen for the selected item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>KEY-DEVICE</td><td>Sets the presence or absence of the key card or key counter</td></tr><tr><td>MESSAGE</td><td>Sets the message when optional equipment is not installed.</td></tr></table> <b>Setting: KEY-DEVICE</b> <ol style="list-style-type: none"><li>1. Select ON or OFF.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>ON</td><td>The key card or the key counter is installed</td></tr><tr><td>OFF</td><td>Not installed</td></tr></table> <ol style="list-style-type: none"><li>2. Press the start key. The setting is set.</li><li>3. Turn the main power switch off and on.</li></ol> <b>Setting: MESSAGE</b> <ol style="list-style-type: none"><li>1. Select the [COUNTER], [CARD] or [COIN].</li><li>2. Press the start key. The setting is set.</li><li>3. Turn the main power switch off and on.</li></ol> <b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.				Display	Description	KEY-DEVICE	Sets the presence or absence of the key card or key counter	MESSAGE	Sets the message when optional equipment is not installed.	Display	Description	ON	The key card or the key counter is installed	OFF	Not installed
Display	Description															
KEY-DEVICE	Sets the presence or absence of the key card or key counter															
MESSAGE	Sets the message when optional equipment is not installed.															
Display	Description															
ON	The key card or the key counter is installed															
OFF	Not installed															

Maintenance item No.	Description
U206	<p><b>Setting the presence or absence of the coin vender</b></p> <p><b>Description</b> Sets the presence or absence of the optional coin vender. Also sets the details for coin vender operation, such as mode and unit price. This is an optional device which is currently supported only by Japanese specification machines, so no setting is necessary.</p>
U207	<p><b>Checking the operation panel keys</b></p> <p><b>Description</b> Checks operation of the operation panel keys.</p> <p><b>Purpose</b> To check operation of all the keys and LEDs on the operation panel.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key. The screen for executing is displayed.</li> <li>2. COUNT0 is displayed and the leftmost LED on the operation panel lights.</li> <li>3. As the keys lined up in the same line as the lit indicator are pressed in the order from the top to the bottom, the figure shown on the touch panel increases in increments of 1. When all the keys in that line are pressed and if there are any LEDs corresponding to the keys in the line on the immediate right, the top LED in that line will light.</li> <li>4. When all the keys on the operation panel have been pressed, all the LEDs light for up to 10 seconds.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>
U208	<p><b>Setting the paper size for the paper feeder</b></p> <p><b>Description</b> Sets the size of paper used in optional 3000-sheet paper feeder.</p> <p><b>Purpose</b> To change the setting when the size of paper used in the paper feeder is changed.</p> <p><b>Method</b> Press the start key. The screen for selecting an item is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the paper size (A4, B5 or Letter). Initial setting: Letter (Inch specifications)/A4 (Metric specifications)</li> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>

Maintenance item No.	Description														
U220	<p><b>Setting the trial functions</b></p> <p><b>Description</b> Enables the trial of USB functions by period limitation.</p> <p><b>Purpose</b> To try USB activation functions.</p> <p><b>Method</b> Press the start key.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FUNCTION</td><td>Selecting trial functions</td></tr> <tr> <td>TRIAL STATUS</td><td>Displays the current setting (1: Under trial, 0: Not trial)</td></tr> <tr> <td>COUPON COUNT</td><td>Displays remaining times</td></tr> <tr> <td>TIME LIMIT</td><td>Displays the end term of the function under present trial.</td></tr> <tr> <td>TRIAL START</td><td>Starts the trial of the function selected with FUNCTION.</td></tr> <tr> <td>TRIAL STOP</td><td>Stops the trial of the function selected with FUNCTION.</td></tr> </tbody> </table> <p><b>Setting: FUNCTION</b></p> <ol style="list-style-type: none"> <li>1. Select [FUNCTION].</li> <li>2. Select the function using the +/- keys.</li> <li>3. Press the start key. The setting is set. [COUPON COUNT], [TIME LIMIT], [TRIAL START] and [TRIAL STOP] are displayed.</li> </ol> <p><b>Method: TRIAL START</b></p> <ol style="list-style-type: none"> <li>1. Select [TRIAL START].</li> <li>2. Press the start key. Trial of the function selected with [FUNCTION] is started. The display of [COUPON COUNT] decreases one. The display of [TIME LIMIT] will be the date of the present date plus 30 days.</li> </ol> <p><b>Method: TRIAL STOP</b></p> <ol style="list-style-type: none"> <li>1. Select [TRIAL STOP].</li> <li>2. Press the start key. Trial of the function selected with [FUNCTION] is stopped.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	FUNCTION	Selecting trial functions	TRIAL STATUS	Displays the current setting (1: Under trial, 0: Not trial)	COUPON COUNT	Displays remaining times	TIME LIMIT	Displays the end term of the function under present trial.	TRIAL START	Starts the trial of the function selected with FUNCTION.	TRIAL STOP	Stops the trial of the function selected with FUNCTION.
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TRIAL START	Starts the trial of the function selected with FUNCTION.														
TRIAL STOP	Stops the trial of the function selected with FUNCTION.														
U234	<p><b>Setting punch destination</b></p> <p><b>Description</b> Sets the destination of optional punch unit of 3000-sheet document finisher.</p> <p><b>Purpose</b> To be set when installing a different punch unit from the destination of the machine.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the destination.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>AUTO</td><td>With no punch unit</td></tr> <tr> <td>JAPAN METRIC</td><td>Metric (Japan) specifications</td></tr> <tr> <td>INCH</td><td>Inch (North America) specifications</td></tr> <tr> <td>EUROPE METRIC</td><td>Metric (Europe) specifications</td></tr> </tbody> </table> <p>Initial setting: INCH (Inch specifications)/EUROPE METRIC (Metric specifications)</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	AUTO	With no punch unit	JAPAN METRIC	Metric (Japan) specifications	INCH	Inch (North America) specifications	EUROPE METRIC	Metric (Europe) specifications				
Display	Description														
AUTO	With no punch unit														
JAPAN METRIC	Metric (Japan) specifications														
INCH	Inch (North America) specifications														
EUROPE METRIC	Metric (Europe) specifications														

Maintenance item No.	Description																		
U236	<p><b>Setting the limit for the ejection section of the built-in finisher</b></p> <p><b>Description</b> If the machine is equipped with an optional built-in finisher, this mode sets whether A5R/B5R/statement size paper is output to the machine eject tray or not.</p> <p><b>Purpose</b> If the machine is equipped with an optional built-in finisher and if paper jams occur due to curling of paper in the built-in ejection section when two-sided copying onto A5R/B5R/statement size paper is performed, this mode is used to change the setting to ON to disable ejection to the machine eject tray.</p> <p><b>Method</b> Press the start key. The screen for executing is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>Press the start key.</li> <li>Select ON or OFF.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ON</td><td>Does not eject to the machine eject tray.</td></tr> <tr> <td>OFF</td><td>Eject to the machine eject tray.</td></tr> </tbody> </table> <p>Initial setting: OFF</p> <ol style="list-style-type: none"> <li>Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ON	Does not eject to the machine eject tray.	OFF	Eject to the machine eject tray.												
Display	Description																		
ON	Does not eject to the machine eject tray.																		
OFF	Eject to the machine eject tray.																		
U237	<p><b>Setting finisher stack quantity</b></p> <p><b>Description</b> Sets the number of sheets of each stack on the main tray and on the internal tray in the optional 3000-sheet document finisher.</p> <p><b>Purpose</b> To change the setting when a stack malfunction has occurred.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>Press the start key.</li> <li>Select the item to be set.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MAIN TRAY</td><td>Number of sheets of stack on the main tray</td></tr> <tr> <td>MIDDLE TRAY</td><td>Number of sheets of stack on the internal tray for sort copying or staple copying</td></tr> </tbody> </table> <p><b>Setting the number of sheets of stack on the main tray</b></p> <ol style="list-style-type: none"> <li>Change the setting using the +/- or numeric keys.</li> </ol> <table border="1"> <thead> <tr> <th>Setting</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0</td><td>3000 sheets</td></tr> <tr> <td>1</td><td>1500 sheets</td></tr> </tbody> </table> <p>Initial setting: 0</p> <ol style="list-style-type: none"> <li>Press the start key. The setting is set.</li> </ol> <p><b>Setting the number of sheets of stack on the internal tray</b></p> <ol style="list-style-type: none"> <li>Change the setting using the +/- or numeric keys.</li> </ol> <table border="1"> <thead> <tr> <th>Setting</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0</td><td>For sort copying: 10 sheets, for staple copying: 50 sheets</td></tr> <tr> <td>1</td><td>For sort copying: 10 sheets, for staple copying: 30 sheets</td></tr> </tbody> </table> <p>Initial setting: 0</p> <ol style="list-style-type: none"> <li>Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MAIN TRAY	Number of sheets of stack on the main tray	MIDDLE TRAY	Number of sheets of stack on the internal tray for sort copying or staple copying	Setting	Description	0	3000 sheets	1	1500 sheets	Setting	Description	0	For sort copying: 10 sheets, for staple copying: 50 sheets	1	For sort copying: 10 sheets, for staple copying: 30 sheets
Display	Description																		
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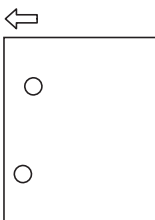
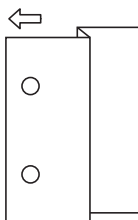
Maintenance item No.	Description																																																				
U240	<p><b>Checking the operation of the finisher</b></p> <p><b>Description</b> Turns each motor and solenoid of the 3000-sheet document finisher ON.</p> <p><b>Purpose</b> To check the operation of each motor and solenoid of the 3000-sheet document finisher.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to be checked. The screen for executing each item is displayed.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FINISHER MOTOR</td><td>Checking the motor of the 3000-sheet document finisher</td></tr> <tr> <td>FINISHER SOL</td><td>Checking the solenoid of the 3000-sheet document finisher</td></tr> <tr> <td>MAIL BOX</td><td>Checking the motor and solenoid of the mail box</td></tr> <tr> <td>BOOKLET</td><td>Checking the motor of the centerfold unit</td></tr> </tbody> </table> <p><b>Method: Checking the motor of the 3000-sheet document finisher</b></p> <ol style="list-style-type: none"> <li>1. Select the item to be operated. The operation starts.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Motor</th></tr> </thead> <tbody> <tr> <td>FEED IN MOTOR M</td><td>Paper entry motor (PEM) is turned on counterwise.</td></tr> <tr> <td>FEED IN MOTOR L</td><td>Paper entry motor (PEM) is turned on clockwise.</td></tr> <tr> <td>CONV MOTOR H</td><td>Paper conveying motor is turned on at high speed.</td></tr> <tr> <td>CONV MOTOR M</td><td>Paper conveying motor is turned on at middle speed.</td></tr> <tr> <td>CONV MOTOR L</td><td>Paper conveying motor is turned on at low speed.</td></tr> <tr> <td>EJECT MOTOR H</td><td>Eject motor (EJM) is turned on at high speed.</td></tr> <tr> <td>EJECT MOTOR M</td><td>Eject motor (EJM) is turned on at middle speed.</td></tr> <tr> <td>EJECT MOTOR L</td><td>Eject motor (EJM) is turned on at low speed.</td></tr> <tr> <td>SUB PATH MOTOR H</td><td>Relief path motor (RPM) is turned on counterwise.</td></tr> <tr> <td>SUB PATH MOTOR M</td><td>Relief path motor (RPM) is turned on clockwise.</td></tr> <tr> <td>BUNDLE UP MOTOR</td><td>Paper conveying belt motor 1 (PCBM1) is turned on.</td></tr> <tr> <td>BUNDLE DOWN MTR</td><td>Paper conveying belt motor 2 (PCBM2) is turned on.</td></tr> <tr> <td>WIDTH TEST(A3)</td><td>Side registration motor 1/2 (SRM1/2) is turned on.</td></tr> <tr> <td>WIDTH TEST(LD)</td><td>Side registration motor 1/2 (SRM1/2) is turned on.</td></tr> <tr> <td>STAPLE FR MOTOR</td><td>Staple shift motor 1 (STSM1) is turned on.</td></tr> <tr> <td>STAPLE S MOTOR</td><td>Staple shift motor 2 (STSM2) is turned on.</td></tr> <tr> <td>STAPLE MOTOR</td><td>Staple motor (STM) is turned on.</td></tr> <tr> <td>TRAY MOTOR</td><td>Main tray motor (MTM) is turned on.</td></tr> <tr> <td>PUNCH MOTOR</td><td>Punch motor (PUNM) is turned on.</td></tr> <tr> <td>PUDDLE MOTOR</td><td>Paddle motor (PDM) is turned on.</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>2. To stop operation, press the stop key.</li> </ol>	Display	Description	FINISHER MOTOR	Checking the motor of the 3000-sheet document finisher	FINISHER SOL	Checking the solenoid of the 3000-sheet document finisher	MAIL BOX	Checking the motor and solenoid of the mail box	BOOKLET	Checking the motor of the centerfold unit	Display	Motor	FEED IN MOTOR M	Paper entry motor (PEM) is turned on counterwise.	FEED IN MOTOR L	Paper entry motor (PEM) is turned on clockwise.	CONV MOTOR H	Paper conveying motor is turned on at high speed.	CONV MOTOR M	Paper conveying motor is turned on at middle speed.	CONV MOTOR L	Paper conveying motor is turned on at low speed.	EJECT MOTOR H	Eject motor (EJM) is turned on at high speed.	EJECT MOTOR M	Eject motor (EJM) is turned on at middle speed.	EJECT MOTOR L	Eject motor (EJM) is turned on at low speed.	SUB PATH MOTOR H	Relief path motor (RPM) is turned on counterwise.	SUB PATH MOTOR M	Relief path motor (RPM) is turned on clockwise.	BUNDLE UP MOTOR	Paper conveying belt motor 1 (PCBM1) is turned on.	BUNDLE DOWN MTR	Paper conveying belt motor 2 (PCBM2) is turned on.	WIDTH TEST(A3)	Side registration motor 1/2 (SRM1/2) is turned on.	WIDTH TEST(LD)	Side registration motor 1/2 (SRM1/2) is turned on.	STAPLE FR MOTOR	Staple shift motor 1 (STSM1) is turned on.	STAPLE S MOTOR	Staple shift motor 2 (STSM2) is turned on.	STAPLE MOTOR	Staple motor (STM) is turned on.	TRAY MOTOR	Main tray motor (MTM) is turned on.	PUNCH MOTOR	Punch motor (PUNM) is turned on.	PUDDLE MOTOR	Paddle motor (PDM) is turned on.
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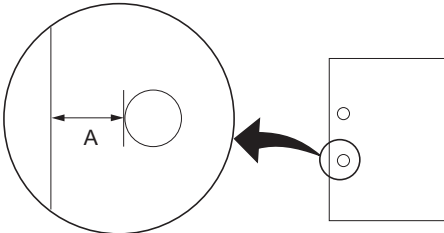
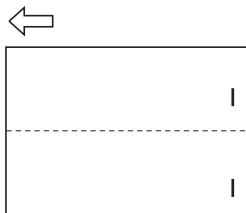
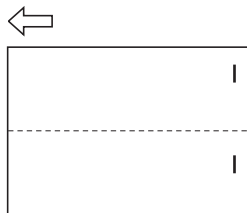
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<b>Completion</b> Press the stop key with the operation stopped. The screen for selecting a maintenance item No. is displayed.																											

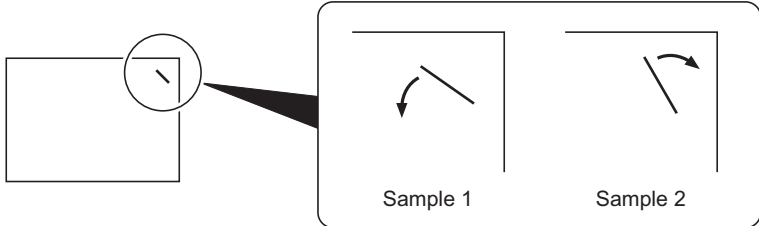
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U241	<p><b>Checking the operation of the switches of the finisher</b></p> <p><b>Description</b> Displays the status of each switch of the 3000-sheet document finisher.</p> <p><b>Purpose</b> To check the operation of each switch of the 3000-sheet document finisher.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to be checked.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FINISHER</td><td>Checking the switch of the 3000-sheet document finisher</td></tr> <tr> <td>MAIL BOX</td><td>Checking the switch of the mail box</td></tr> <tr> <td>BOOKLET</td><td>Checking the switch of the centerfold unit</td></tr> </tbody> </table> <p><b>Method: Checking the switch of the 3000-sheet document finisher</b></p> <ol style="list-style-type: none"> <li>1. Turn the respective switches on and off manually to check the status. When a switch is detected to be in the ON position, the display for that switch will be highlighted.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>FRONT COVER SW</td><td>Front cover switch (FCSW)</td></tr> <tr> <td>TOP COVER SW</td><td>Top cover switch (TCSW)</td></tr> <tr> <td>RIGHT COVER SW</td><td>Sub tray right switch (STRSW)</td></tr> <tr> <td>SET SW</td><td>Joint switch (JSW)</td></tr> <tr> <td>BOOKLET SW</td><td>Centerfold set switch (CSSW)</td></tr> <tr> <td>PUNCH TANK SW</td><td>Punch waste box sensor (PWBS)</td></tr> <tr> <td>TRAY L-LIMIT SW</td><td>Main tray lower limit detection sensor (MTLLDS)</td></tr> <tr> <td>TRAY U-LIMIT SW</td><td>Main tray upper limit detection sensor (MTULDS)</td></tr> <tr> <td>TRAY MIDDLE SW</td><td>Main tray middle position detection sensor (MTMPDS)</td></tr> <tr> <td>PAP HOLD DOWN SW</td><td>Paper holder home position sensor (PHHPS)</td></tr> <tr> <td>LOAD DET SW</td><td>Main tray load detection sensor (MTLDS)</td></tr> <tr> <td>FEED IN SW</td><td>Paper entry sensor (PES)</td></tr> <tr> <td>EJECT SW 1</td><td>Eject switch 1 (ESW1)</td></tr> <tr> <td>EJECT SW 2</td><td>Eject switch 2 (ESW2)</td></tr> <tr> <td>EJECT SW 3</td><td>Eject switch 3 (ESW3)</td></tr> <tr> <td>STAPLE HP SW 1</td><td>Staple home position switch 1 (STHPSW1)</td></tr> <tr> <td>STAPLE HP SW 2</td><td>Staple home position switch 2 (STHPSW2)</td></tr> <tr> <td>MIDDLE FEED SW1</td><td>Internal tray paper entry sensor 1 (ITPES1)</td></tr> <tr> <td>MIDDLE FEED SW2</td><td>Internal tray paper entry sensor 2 (ITPES2)</td></tr> <tr> <td>BUNDLE DET SW 1</td><td>Paper detection sensor 1 (PDS1)</td></tr> <tr> <td>BUNDLE DET SW 2</td><td>Paper detection sensor 2 (PDS2)</td></tr> <tr> <td>BUNDLE UP HP SW</td><td>Paper conveying belt home position sensor 1 (PCBHPS1)</td></tr> <tr> <td>BNDL DOWN HP SW</td><td>Paper conveying belt home position sensor 2 (PCBHPS2)</td></tr> <tr> <td>WIDTH HP SW 1</td><td>Side registration home position sensor 1 (SRHPS1)</td></tr> <tr> <td>WIDTH HP SW 2</td><td>Side registration home position sensor 2 (SRHPS2)</td></tr> <tr> <td>BUNDLE INTERF SW</td><td>Paper conveying belt position detection sensor (PCBDS)</td></tr> <tr> <td>VCARRY SW</td><td>Centerfold paper conveying sensor (CPCS)</td></tr> </tbody> </table>	Display	Description	FINISHER	Checking the switch of the 3000-sheet document finisher	MAIL BOX	Checking the switch of the mail box	BOOKLET	Checking the switch of the centerfold unit	Display	Switches	FRONT COVER SW	Front cover switch (FCSW)	TOP COVER SW	Top cover switch (TCSW)	RIGHT COVER SW	Sub tray right switch (STRSW)	SET SW	Joint switch (JSW)	BOOKLET SW	Centerfold set switch (CSSW)	PUNCH TANK SW	Punch waste box sensor (PWBS)	TRAY L-LIMIT SW	Main tray lower limit detection sensor (MTLLDS)	TRAY U-LIMIT SW	Main tray upper limit detection sensor (MTULDS)	TRAY MIDDLE SW	Main tray middle position detection sensor (MTMPDS)	PAP HOLD DOWN SW	Paper holder home position sensor (PHHPS)	LOAD DET SW	Main tray load detection sensor (MTLDS)	FEED IN SW	Paper entry sensor (PES)	EJECT SW 1	Eject switch 1 (ESW1)	EJECT SW 2	Eject switch 2 (ESW2)	EJECT SW 3	Eject switch 3 (ESW3)	STAPLE HP SW 1	Staple home position switch 1 (STHPSW1)	STAPLE HP SW 2	Staple home position switch 2 (STHPSW2)	MIDDLE FEED SW1	Internal tray paper entry sensor 1 (ITPES1)	MIDDLE FEED SW2	Internal tray paper entry sensor 2 (ITPES2)	BUNDLE DET SW 1	Paper detection sensor 1 (PDS1)	BUNDLE DET SW 2	Paper detection sensor 2 (PDS2)	BUNDLE UP HP SW	Paper conveying belt home position sensor 1 (PCBHPS1)	BNDL DOWN HP SW	Paper conveying belt home position sensor 2 (PCBHPS2)	WIDTH HP SW 1	Side registration home position sensor 1 (SRHPS1)	WIDTH HP SW 2	Side registration home position sensor 2 (SRHPS2)	BUNDLE INTERF SW	Paper conveying belt position detection sensor (PCBDS)	VCARRY SW	Centerfold paper conveying sensor (CPCS)
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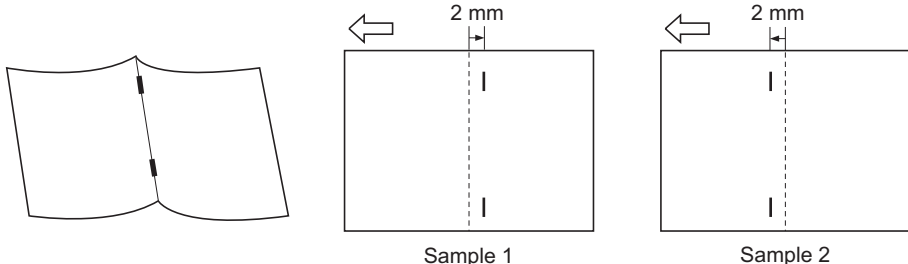
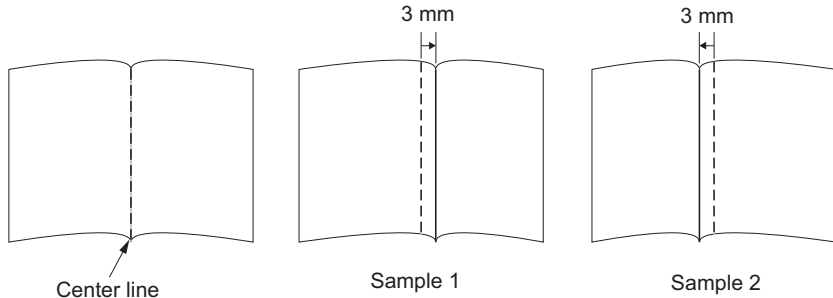
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U241	<p><b>Method: Checking the switch of the mail box</b></p> <p>1. Turn the respective switches on and off manually to check the status. When a switch is detected to be in the ON position, the display for that switch will be highlighted.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>FEED IN SW</td><td>Mail paper entry switch (MPESW)</td></tr> <tr> <td>EJECT SW</td><td>Tray eject sensor (TEJS)</td></tr> <tr> <td>COVER SW</td><td>Mail box cover open/close switch (MBCOSW)</td></tr> <tr> <td>OVER FLOW SW 1</td><td>Tray overflow switch 1 (TOFSW1)</td></tr> <tr> <td>OVER FLOW SW 2</td><td>Tray overflow switch 2 (TOFSW2)</td></tr> <tr> <td>OVER FLOW SW 3</td><td>Tray overflow switch 3 (TOFSW3)</td></tr> <tr> <td>OVER FLOW SW 4</td><td>Tray overflow switch 4 (TOFSW4)</td></tr> <tr> <td>OVER FLOW SW 5</td><td>Tray overflow switch 5 (TOFSW5)</td></tr> <tr> <td>OVER FLOW SW 6</td><td>Tray overflow switch 6 (TOFSW6)</td></tr> <tr> <td>OVER FLOW SW 7</td><td>Tray overflow switch 7 (TOFSW7)</td></tr> </tbody> </table> <p><b>Method: Checking the switch of the centerfold unit</b></p> <p>1. Turn the respective switches on and off manually to check the status. When a switch is detected to be in the ON position, the display for that switch will be highlighted.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>BUNDLE UP HP SW</td><td>Centerfold paper conveying belt sensor 1 (CPCBS1)</td></tr> <tr> <td>BNDL DOWN HP SW</td><td>Centerfold paper conveying belt sensor 2 (CPCBS2)</td></tr> <tr> <td>BLADE HP SW</td><td>Blade home position sensor (BLHPS)</td></tr> <tr> <td>WIDTH HP SW U</td><td>Centerfold side registration sensor 2 (CSRS2)</td></tr> <tr> <td>WIDTH HP SW L</td><td>Centerfold side registration sensor 1 (CSRS1)</td></tr> <tr> <td>FEED IN SW</td><td>Centerfold paper entry sensor (CPES)</td></tr> <tr> <td>PAPER DET SW</td><td>Centerfold paper detection sensor (CPDS)</td></tr> <tr> <td>TRAY PAP DET SW</td><td>Tray paper detection sensor (TPDS)</td></tr> <tr> <td>EJECT SW</td><td>Centerfold eject switch (CESW)</td></tr> <tr> <td>TRAY DET SW</td><td>Centerfold top cover switch (CTCSW)</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches	FEED IN SW	Mail paper entry switch (MPESW)	EJECT SW	Tray eject sensor (TEJS)	COVER SW	Mail box cover open/close switch (MBCOSW)	OVER FLOW SW 1	Tray overflow switch 1 (TOFSW1)	OVER FLOW SW 2	Tray overflow switch 2 (TOFSW2)	OVER FLOW SW 3	Tray overflow switch 3 (TOFSW3)	OVER FLOW SW 4	Tray overflow switch 4 (TOFSW4)	OVER FLOW SW 5	Tray overflow switch 5 (TOFSW5)	OVER FLOW SW 6	Tray overflow switch 6 (TOFSW6)	OVER FLOW SW 7	Tray overflow switch 7 (TOFSW7)	Display	Switches	BUNDLE UP HP SW	Centerfold paper conveying belt sensor 1 (CPCBS1)	BNDL DOWN HP SW	Centerfold paper conveying belt sensor 2 (CPCBS2)	BLADE HP SW	Blade home position sensor (BLHPS)	WIDTH HP SW U	Centerfold side registration sensor 2 (CSRS2)	WIDTH HP SW L	Centerfold side registration sensor 1 (CSRS1)	FEED IN SW	Centerfold paper entry sensor (CPES)	PAPER DET SW	Centerfold paper detection sensor (CPDS)	TRAY PAP DET SW	Tray paper detection sensor (TPDS)	EJECT SW	Centerfold eject switch (CESW)	TRAY DET SW	Centerfold top cover switch (CTCSW)
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U243	<p><b>Checking the operation of the DP motors</b></p> <p><b>Description</b> Turns the motors in the optional DP on.</p> <p><b>Purpose</b> To check the operation of the DP motors.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>Press the start key.</li> <li>Select the item to be operated.</li> <li>Press the start key. The operation starts.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Motors</th></tr> </thead> <tbody> <tr> <td>DP FEED MOTOR</td><td>Original feed motor (OFM) is turned on.</td></tr> <tr> <td>DP REG MOTOR</td><td>Original registration motor (ORM) is turned on.</td></tr> <tr> <td>DP CONV MOTOR</td><td>Original conveying motor (OCM) is turned on.</td></tr> <tr> <td>DP LIFT MOTOR</td><td>DP lift motor (DPLM) is turned on.</td></tr> <tr> <td>CIS FAN MOTOR</td><td>DP fan motor 1,2,3 (DPFM1,2,3) is turned on.</td></tr> <tr> <td>DP FEED MOT REV</td><td>Original feed motor (OFM) is turned on reversing.</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>To stop operation, press the stop key.</li> </ol> <p><b>Completion</b> Press the stop key when operation stops. The screen for selecting a maintenance item No. is displayed.</p>	Display	Motors	DP FEED MOTOR	Original feed motor (OFM) is turned on.	DP REG MOTOR	Original registration motor (ORM) is turned on.	DP CONV MOTOR	Original conveying motor (OCM) is turned on.	DP LIFT MOTOR	DP lift motor (DPLM) is turned on.	CIS FAN MOTOR	DP fan motor 1,2,3 (DPFM1,2,3) is turned on.	DP FEED MOT REV	Original feed motor (OFM) is turned on reversing.																														
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U244	<p><b>Checking the DP switches</b></p> <p><b>Description</b> Displays the status of the respective switches in the optional DP.</p> <p><b>Purpose</b> To check if respective switches in the optional DP operate correctly.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Turn the respective switches on and off manually to check the status.</li> </ol> <p>When a switch is detected to be in the ON position, the display for that switch will be highlighted.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches</th></tr> </thead> <tbody> <tr> <td>LIFT LOW LIM SW</td><td>DP lift upper limit switch (DPLULSW)</td></tr> <tr> <td>LIFT UP LIM SW</td><td>DP lift lower limit switch (DPLLLSW)</td></tr> <tr> <td>DP SET SW</td><td>Original set switch (OSSW)</td></tr> <tr> <td>DP PSD SW</td><td>Original size length switch (OLSW)</td></tr> <tr> <td>DP FEED SW</td><td>Original feed switch (OFSW)</td></tr> <tr> <td>DP REG SW</td><td>Original registration switch (ORSW)</td></tr> <tr> <td>CCD TMING SW</td><td>DP timing switch 1 (DPTSW1)</td></tr> <tr> <td>CIS TMING SW</td><td>DP timing switch 2 (DPTSW2)</td></tr> <tr> <td>DP COVER SW</td><td>DP safety switch 2 (DPSSW2)</td></tr> <tr> <td>DP OPEN SW</td><td>DP safety switch 1 (DPSSW1)</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches	LIFT LOW LIM SW	DP lift upper limit switch (DPLULSW)	LIFT UP LIM SW	DP lift lower limit switch (DPLLLSW)	DP SET SW	Original set switch (OSSW)	DP PSD SW	Original size length switch (OLSW)	DP FEED SW	Original feed switch (OFSW)	DP REG SW	Original registration switch (ORSW)	CCD TMING SW	DP timing switch 1 (DPTSW1)	CIS TMING SW	DP timing switch 2 (DPTSW2)	DP COVER SW	DP safety switch 2 (DPSSW2)	DP OPEN SW	DP safety switch 1 (DPSSW1)
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DP COVER SW	DP safety switch 2 (DPSSW2)																						
DP OPEN SW	DP safety switch 1 (DPSSW1)																						
U245	<p><b>Checking messages</b></p> <p><b>Description</b> Displays a list of messages on the touch panel of the operation panel.</p> <p><b>Purpose</b> To check the messages to be displayed.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item to be displayed.</li> <li>3. Change the screen using the cursor up/down keys to display each message one at a time.</li> </ol> <p>When a message number is entered with the numeric keys and then the start key is pressed, the message corresponding the specified number is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																						

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U246	<p><b>Setting the finisher</b></p> <p><b>Description</b> Provides various settings for the optional finisher, if furnished.</p> <p><b>Purpose</b></p> <p><b>Adjustment of registration stop timing in punch mode</b> Adjust if skewed paper conveying occurs or if the copy paper is Z-folded in punch mode.</p> <p><b>Adjustment of paper stop timing in the punch mode</b> To adjust this item when the position of a punch hole is different from the specified one.</p> <p><b>Adjustment of front/rear side registration home position of internal tray</b> Provides optimization when paper jam occurs due to an inferior fitting of the internal tray adjuster guides to paper.</p> <p><b>Adjusting of front and back/slanted stapling home position</b> Adjusts the stapling position in the staple mode if the position is not proper. Provides adjustment of slanted stapling.</p> <p><b>Adjustment of upper/lower side registration home position of centerfold unit</b> Provides optimization when paper jam occurs due to an inferior fitting of the centerfold adjuster guides to paper.</p> <p><b>Adjustment of booklet stapling position</b> Adjusts the booklet stapling position in the stitching mode if the position is not proper.</p> <p><b>Adjustment of center folding position</b> Adjusts the center folding position in the stitching mode if the position is not proper.</p> <p><b>Start</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be set. The screen for setting each item is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>FINISHER 3000</td><td>Adjustment of the 3000-sheet document finisher</td></tr><tr><td>BOOKLET FOLDER</td><td>Adjustment of the centerfold unit</td></tr><tr><td>FINISHER B-IN</td><td>Adjustment of the built-in finisher</td></tr></table> <p><b>Setting: 3000-sheet document finisher</b></p> <ol style="list-style-type: none"><li>1. Select the item to be set.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>PUNCH REG ADJ</td><td>Adjustment of registration stop timing in punch mode</td></tr><tr><td>PUNCH POS ADJ</td><td>Adjustment of the paper stop timing in punch mode</td></tr><tr><td>WIDTH F HP ADJ</td><td>Adjustment of front side registration home position</td></tr><tr><td>WIDTH R HP ADJ</td><td>Adjustment of rear side registration home position</td></tr><tr><td>STAPLE HP ADJ</td><td>Adjustment of front and back stapling home position</td></tr><tr><td>T-STAPLE HP ADJ</td><td>Adjustment of slanted stapling home position</td></tr></table> <p><b>Setting: adjustment of registration stop timing</b></p> <ol style="list-style-type: none"><li>1. Select [PUNCH REG ADJ].</li><li>2. Change the setting using the +/- or numeric keys.</li></ol> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of registration stop timing</td><td>-20 to 20</td><td>0</td><td>1 ms</td></tr></table> <p>If skewed paper conveying occurs (sample 1), increase the preset value. If the copy paper is Z-folded (sample 2), decrease the preset value.</p> <div><div><p>Sample 1</p></div><div><p>Sample 2</p></div></div> <p style="text-align: center;"><b>Figure 1-3-18</b></p> <ol style="list-style-type: none"><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol>	Display	Description	FINISHER 3000	Adjustment of the 3000-sheet document finisher	BOOKLET FOLDER	Adjustment of the centerfold unit	FINISHER B-IN	Adjustment of the built-in finisher	Display	Description	PUNCH REG ADJ	Adjustment of registration stop timing in punch mode	PUNCH POS ADJ	Adjustment of the paper stop timing in punch mode	WIDTH F HP ADJ	Adjustment of front side registration home position	WIDTH R HP ADJ	Adjustment of rear side registration home position	STAPLE HP ADJ	Adjustment of front and back stapling home position	T-STAPLE HP ADJ	Adjustment of slanted stapling home position	Description	Setting range	Initial setting	Change in value per step	Adjustment of registration stop timing	-20 to 20	0	1 ms
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Maintenance item No.	Description																												
U246	<p><b>Setting: adjustment of the paper stop timing</b></p> <p>1. Select PUNCH POS ADJ.</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of the paper stop timing</td><td>-10 to 10</td><td>0</td><td>0.49 mm</td></tr></table> <p>If the distance of the position of a punch hole is smaller than the specified value A, increase the preset value. If the distance is larger than the value A, decrease the preset value.</p> <div><p>Preset value A: 5.5 ± 2 mm (inch) 9.5 ± 2 mm (metric)</p></div> <p><b>Figure 1-3-19</b></p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p> <p><b>Setting: adjustment of front/rear side registration home position</b></p> <p>1. Select [WIDTH F HP ADJ] or [WIDTH R HP ADJ].</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of front side registration home position</td><td>-10 to 10</td><td>0</td><td>0.314 mm</td></tr><tr><td>Adjustment of rear side registration home position</td><td>-10 to 10</td><td>0</td><td>0.314 mm</td></tr></table> <p>3. Press the start key. The value is set.</p> <p>4. Press the stop key. The screen for selecting a maintenance item No. is displayed.</p> <p>5. Enter maintenance mode U240 and select [FINISHER MOTOR], then [WIDTH TEST(A3)]. The width guides of the internal tray will move to A3-size position.</p> <p>6. Pull the internal tray, insert paper between the guides and check that paper is abut the guides.</p> <p>7. Repeat the above adjustment until paper is properly in position.</p> <p><b>Setting: adjustment of front and back stapling home position</b></p> <p>1. Select [STAPLE HP ADJ].</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of front and back stapling home position</td><td>-10 to 10</td><td>0</td><td>0.32 mm</td></tr></table> <p>When staple positions are off toward the front side of the machine (sample 1), increase the preset value. When staple positions are off toward the rear side of the machine (sample 2), decrease the preset value.</p> <div><div><p>Sample 1</p></div><div><p>Sample 2</p></div></div> <p><b>Figure 1-3-20</b></p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p>	Description	Setting range	Initial setting	Change in value per step	Adjustment of the paper stop timing	-10 to 10	0	0.49 mm	Description	Setting range	Initial setting	Change in value per step	Adjustment of front side registration home position	-10 to 10	0	0.314 mm	Adjustment of rear side registration home position	-10 to 10	0	0.314 mm	Description	Setting range	Initial setting	Change in value per step	Adjustment of front and back stapling home position	-10 to 10	0	0.32 mm
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U246	<p><b>Setting: adjustment of slanted stapling home position</b></p> <p>1. Select T-STAPLE HP ADJ.</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of slanted stapling home position</td><td>-10 to 10</td><td>0</td><td>0.99°</td></tr></table> <p>To increase the angle for slanted stapling (sample 1), decrease the preset value. To decrease the angle for slanted stapling (sample 2), increase the preset value.</p> <div></div> <p style="text-align: center;"><b>Figure 1-3-21</b></p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p> <p><b>Setting: centerfold unit</b></p> <p>1. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>WIDTH U HP ADJ</td><td>Adjustment of upper side registration home position</td></tr><tr><td>WIDTH L HP ADJ</td><td>Adjustment of lower side registration home position</td></tr><tr><td>STAPLE POS ADJ1</td><td>Adjustment of booklet stapling position for A4/letter size</td></tr><tr><td>STAPLE POS ADJ2</td><td>Adjustment of booklet stapling position for B4/legal size</td></tr><tr><td>STAPLE POS ADJ3</td><td>Adjustment of booklet stapling position for A3/ledger size</td></tr><tr><td>BOOKLET POS ADJ1</td><td>Adjustment of center folding position for A4/letter size</td></tr><tr><td>BOOKLET POS ADJ2</td><td>Adjustment of center folding position for B4/legal size</td></tr><tr><td>BOOKLET POS ADJ3</td><td>Adjustment of center folding position for A3/ledger size</td></tr></table> <p><b>Setting: adjustment of upper/lower side registration home position</b></p> <p>1. Select [WIDTH U HP ADJ] or [WIDTH L HP ADJ].</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of upper side registration home position</td><td>-20 to 20</td><td>0</td><td>0.1 mm</td></tr><tr><td>Adjustment of lower side registration home position</td><td>-46 to 46</td><td>0</td><td>0.1 mm</td></tr></table> <p>3. Press the start key. The value is set.</p> <p>4. Press the stop key. The screen for selecting a maintenance item No. is displayed.</p> <p>5. Enter maintenance mode U240 and select [BOOKLET], then [WIDTH TEST(A3)]. The width guides of the centerfold unit will move to A3-size position.</p> <p>6. Pull the centerfold unit, insert paper between the guides and check that paper is abut the guides.</p> <p>7. Repeat the above adjustment until paper is properly in position.</p>	Description	Setting range	Initial setting	Change in value per step	Adjustment of slanted stapling home position	-10 to 10	0	0.99°	Display	Description	WIDTH U HP ADJ	Adjustment of upper side registration home position	WIDTH L HP ADJ	Adjustment of lower side registration home position	STAPLE POS ADJ1	Adjustment of booklet stapling position for A4/letter size	STAPLE POS ADJ2	Adjustment of booklet stapling position for B4/legal size	STAPLE POS ADJ3	Adjustment of booklet stapling position for A3/ledger size	BOOKLET POS ADJ1	Adjustment of center folding position for A4/letter size	BOOKLET POS ADJ2	Adjustment of center folding position for B4/legal size	BOOKLET POS ADJ3	Adjustment of center folding position for A3/ledger size	Description	Setting range	Initial setting	Change in value per step	Adjustment of upper side registration home position	-20 to 20	0	0.1 mm	Adjustment of lower side registration home position	-46 to 46	0	0.1 mm
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Adjustment of lower side registration home position	-46 to 46	0	0.1 mm																																				

Maintenance item No.	Description																																
U246	<p><b>Setting: adjustment of booklet stapling position</b></p> <p>1. Select the [STAPLE POS ADJ 1], [STAPLE POS ADJ 2] or [STAPLE POS ADJ 3].</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of booklet stapling position for A4/letter size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr><tr><td>Adjustment of booklet stapling position for B4/legal size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr><tr><td>Adjustment of booklet stapling position for A3/ledger size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr></table> <p>When staples are placed too far right (sample 1), decrease the preset value. When staples are placed too far left (sample 2), increase the preset value.</p> <p>Reference value: within <math>\pm 2</math> mm</p> <div></div> <p style="text-align: center;">Sample 1                      Sample 2</p> <p style="text-align: center;"><b>Figure 1-3-22</b></p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p> <p><b>Setting: adjustment of center folding position</b></p> <p>1. Select the [BOOKLET POS ADJ1], [BOOKLET POS ADJ2] or [BOOKLET POS ADJ3].</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adjustment of center folding position for A4/letter size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr><tr><td>Adjustment of center folding position for B4R/legal size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr><tr><td>Adjustment of center folding position for A3R/ledger size</td><td>-10 to 10</td><td>0</td><td>0.55 mm</td></tr></table> <p>When the centerfold position too far right (sample 1), increase the preset value. When the centerfold position too far left (sample 2), decrease the setting value.</p> <p>Reference value: within <math>\pm 3</math> mm</p> <div></div> <p style="text-align: center;">Center line                      Sample 1                      Sample 2</p> <p style="text-align: center;"><b>Figure 1-3-23</b></p> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p>	Description	Setting range	Initial setting	Change in value per step	Adjustment of booklet stapling position for A4/letter size	-10 to 10	0	0.55 mm	Adjustment of booklet stapling position for B4/legal size	-10 to 10	0	0.55 mm	Adjustment of booklet stapling position for A3/ledger size	-10 to 10	0	0.55 mm	Description	Setting range	Initial setting	Change in value per step	Adjustment of center folding position for A4/letter size	-10 to 10	0	0.55 mm	Adjustment of center folding position for B4R/legal size	-10 to 10	0	0.55 mm	Adjustment of center folding position for A3R/ledger size	-10 to 10	0	0.55 mm
Description	Setting range	Initial setting	Change in value per step																														
Adjustment of booklet stapling position for A4/letter size	-10 to 10	0	0.55 mm																														
Adjustment of booklet stapling position for B4/legal size	-10 to 10	0	0.55 mm																														
Adjustment of booklet stapling position for A3/ledger size	-10 to 10	0	0.55 mm																														
Description	Setting range	Initial setting	Change in value per step																														
Adjustment of center folding position for A4/letter size	-10 to 10	0	0.55 mm																														
Adjustment of center folding position for B4R/legal size	-10 to 10	0	0.55 mm																														
Adjustment of center folding position for A3R/ledger size	-10 to 10	0	0.55 mm																														

Maintenance item No.	Description																				
U246	<p><b>Setting the side registration cursor stop position</b></p> <p>1. Select the desired cursor position.</p> <p>2. Change the setting using the +/- or numeric keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>FRONT</td><td>Front side registration cursor stop position</td><td>-4 to +4</td><td>0</td></tr><tr><td>REAR</td><td>Rear side registration cursor stop position</td><td>-4 to +4</td><td>0</td></tr><tr><td>END</td><td>Trailing edge registration cursor stop position</td><td>-4 to +4</td><td>0</td></tr></table> <p>3. Press the start key. The value is set.</p> <p>4. To return to the screen for selecting an item, press the stop key.</p> <p><b>Completion</b></p> <p>Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	FRONT	Front side registration cursor stop position	-4 to +4	0	REAR	Rear side registration cursor stop position	-4 to +4	0	END	Trailing edge registration cursor stop position	-4 to +4	0				
Display	Description	Setting range	Initial setting																		
FRONT	Front side registration cursor stop position	-4 to +4	0																		
REAR	Rear side registration cursor stop position	-4 to +4	0																		
END	Trailing edge registration cursor stop position	-4 to +4	0																		
U247	<p><b>Setting the paper feed device</b></p> <p><b>Description</b></p> <p>Turns on motors and clutches of optional 3000-sheet paper feeder or paper feeder.</p> <p><b>Purpose</b></p> <p>To check the operation of motors and clutches of paper feed device.</p> <p><b>Method</b></p> <p>1. Press the start key. The value varies depending to the option furnished.</p> <p>3000-sheet paper feeder</p> <table><tr><th>Display</th><th>Motor and clutches</th></tr><tr><td>LCF FEED</td><td>Paper feeder conveying motor (PFCM)</td></tr><tr><td>CLUTCH B</td><td>Paper feeder conveying clutch (PFCCL)</td></tr><tr><td>CLUTCH P1</td><td>Paper feeder paper feed clutch 1 (PFPFCL1)</td></tr><tr><td>CLUTCH P2</td><td>Paper feeder paper feed clutch 2 (PFPFCL2)</td></tr></table> <p>Paper feeder</p> <table><tr><th>Display</th><th>Motor and clutches</th></tr><tr><td>DESK FEED</td><td>Paper feeder drive motor (PFDM)</td></tr><tr><td>CLUTCH FEED</td><td>Paper feeder feed clutch (PFFCL)</td></tr><tr><td>CLUTCH U</td><td>Paper feeder paper feed clutch 1 (PFPFCL1)</td></tr><tr><td>CLUTCH L</td><td>Paper feeder paper feed clutch 2 (PFPFCL2)</td></tr></table> <p>2. Select the item to be operated.</p> <p>3. Press the start key. The operation starts.</p> <p>4. To stop operation, press the stop key.</p> <p><b>Completion</b></p> <p>Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Motor and clutches	LCF FEED	Paper feeder conveying motor (PFCM)	CLUTCH B	Paper feeder conveying clutch (PFCCL)	CLUTCH P1	Paper feeder paper feed clutch 1 (PFPFCL1)	CLUTCH P2	Paper feeder paper feed clutch 2 (PFPFCL2)	Display	Motor and clutches	DESK FEED	Paper feeder drive motor (PFDM)	CLUTCH FEED	Paper feeder feed clutch (PFFCL)	CLUTCH U	Paper feeder paper feed clutch 1 (PFPFCL1)	CLUTCH L	Paper feeder paper feed clutch 2 (PFPFCL2)
Display	Motor and clutches																				
LCF FEED	Paper feeder conveying motor (PFCM)																				
CLUTCH B	Paper feeder conveying clutch (PFCCL)																				
CLUTCH P1	Paper feeder paper feed clutch 1 (PFPFCL1)																				
CLUTCH P2	Paper feeder paper feed clutch 2 (PFPFCL2)																				
Display	Motor and clutches																				
DESK FEED	Paper feeder drive motor (PFDM)																				
CLUTCH FEED	Paper feeder feed clutch (PFFCL)																				
CLUTCH U	Paper feeder paper feed clutch 1 (PFPFCL1)																				
CLUTCH L	Paper feeder paper feed clutch 2 (PFPFCL2)																				

Maintenance item No.	Description								
U250	<p><b>Setting the maintenance cycle</b></p> <p><b>Description</b> Displays and changes the maintenance cycle.</p> <p><b>Purpose</b> To check and change the maintenance cycle.</p> <p><b>Method</b> Press the start key. The currently set maintenance cycle is displayed.</p> <p><b>Setting</b></p> <div><div>1. Change the setting using the numeric keys.</div><table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Maintenance cycle</td><td>0 to 9999999</td><td>400000 (30 ppm), 500000 (40/50 ppm)</td></tr></table></div> <p>2. Press the start key. The value is set.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>			Description	Setting range	Initial setting	Maintenance cycle	0 to 9999999	400000 (30 ppm), 500000 (40/50 ppm)
Description	Setting range	Initial setting							
Maintenance cycle	0 to 9999999	400000 (30 ppm), 500000 (40/50 ppm)							
U251	<p><b>Checking/clearing the maintenance count</b></p> <p><b>Description</b> Displays, clears and changes the maintenance count.</p> <p><b>Purpose</b> To check the maintenance count. Also to clear the count during maintenance service.</p> <p><b>Method</b> Press the start key. The maintenance count is displayed.</p> <p><b>Clearing</b></p> <div><div>1. Press the clear key.</div><div>2. Press the start key. The count is cleared.</div></div> <p><b>Setting</b></p> <div><div>1. Enter a count using the numeric keys.</div><div>2. Press the start key. The count is set.</div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>								

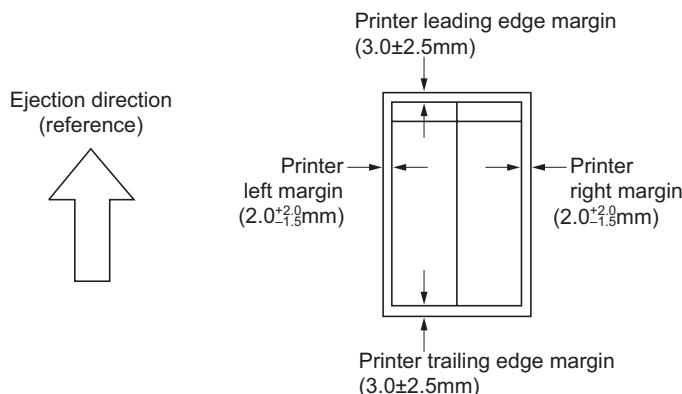
Maintenance item No.	Description																							
U252	<p><b>Setting the destination</b></p> <p><b>Description</b> Switches the operations and screens of the machine according to the destination.</p> <p><b>Purpose</b> To be executed after initializing the backup RAM by running maintenance item U020, in order to return the setting to the value before replacement or initialization.</p> <p><b>Method</b> Press the start key. The screen for selecting an item is displayed.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the destination.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>INCH</td><td>Inch (North America) specifications</td></tr><tr><td>EUROPE METRIC</td><td>Metric (Europe) specifications</td></tr><tr><td>ASIA PACIFIC</td><td>Metric (Asia Pacific) specifications</td></tr></table> <ol style="list-style-type: none"><li>3. Press the start key. The setting is set.</li><li>4. Turn the main power switch off and on.</li></ol> <p><b>Supplement</b> The specified initial settings are provided according to the destinations in the maintenance items below. To change the initial settings in those items, be sure to run maintenance item U021 after changing the destination.</p> <p><b>Initial setting according to the destinations</b></p> <table><tr><th>Maintenance item No.</th><th>Title</th><th>Japan</th><th>Inch</th><th>Europe Metric, Asia Pacific</th></tr><tr><td>208</td><td>Setting the paper size for the paper feeder</td><td>A4</td><td>Letter</td><td>A4</td></tr><tr><td>253</td><td>Switching between double and single counts</td><td>Single</td><td>Double</td><td>Double</td></tr></table>	Display	Description	INCH	Inch (North America) specifications	EUROPE METRIC	Metric (Europe) specifications	ASIA PACIFIC	Metric (Asia Pacific) specifications	Maintenance item No.	Title	Japan	Inch	Europe Metric, Asia Pacific	208	Setting the paper size for the paper feeder	A4	Letter	A4	253	Switching between double and single counts	Single	Double	Double
Display	Description																							
INCH	Inch (North America) specifications																							
EUROPE METRIC	Metric (Europe) specifications																							
ASIA PACIFIC	Metric (Asia Pacific) specifications																							
Maintenance item No.	Title	Japan	Inch	Europe Metric, Asia Pacific																				
208	Setting the paper size for the paper feeder	A4	Letter	A4																				
253	Switching between double and single counts	Single	Double	Double																				
U253	<p><b>Switching between double and single counts</b></p> <p><b>Description</b> Switches the count system for the total counter and other counters.</p> <p><b>Purpose</b> Used to select, according to the preference of the user (copy service provider), if A3/Ledger paper is to be counted as one sheet (single count) or two sheets (double count).</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select double or single count.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>SINGLE COUNT</td><td>Single count for all size paper</td></tr><tr><td>DBL CNT(A3/LGR)</td><td>Double count for A3/Ledger size or larger</td></tr><tr><td>DBL COUNT(B4)</td><td>Double count for B4 size or larger</td></tr></table> <p>Initial setting: DBL CNT(A3/LGR)</p> <ol style="list-style-type: none"><li>3. Press the start key. The setting is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	SINGLE COUNT	Single count for all size paper	DBL CNT(A3/LGR)	Double count for A3/Ledger size or larger	DBL COUNT(B4)	Double count for B4 size or larger															
Display	Description																							
SINGLE COUNT	Single count for all size paper																							
DBL CNT(A3/LGR)	Double count for A3/Ledger size or larger																							
DBL COUNT(B4)	Double count for B4 size or larger																							

Maintenance item No.	Description						
<b>U260</b>	<p><b>Selecting the timing for copy counting</b></p> <p><b>Description</b> Changes the copy count timing for the total counter and other counters.</p> <p><b>Purpose</b> To be set according to user (copy service provider) request. If a paper jam occurs frequently in the optional document finisher when the number of copies is counted at the time of paper ejection, copies are provided without copy counts. The copy service provider cannot charge for such copying. To prevent this, the copy timing should be made earlier. If a paper jam occurs frequently in the paper conveying or fuser sections when the number of copies is counted before the paper reaches those sections, copying is charged without a copy being made. To prevent this, the copy timing should be made later.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the copy count timing.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FEED</td><td>When secondary paper feed starts</td></tr> <tr> <td>EJECT</td><td>When the paper is ejected</td></tr> </tbody> </table> <p>Initial setting: EJECT</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	FEED	When secondary paper feed starts	EJECT	When the paper is ejected
Display	Description						
FEED	When secondary paper feed starts						
EJECT	When the paper is ejected						
<b>U265</b>	<p><b>Setting OEM purchaser code</b></p> <p><b>Description</b> Sets the OEM purchaser code.</p> <p><b>Purpose</b> Sets the code when replacing the main PWB and the like.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Adjust the preset value using the +/- or numeric keys.</li> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
<b>U285</b>	<p><b>Setting service status page</b></p> <p><b>Description</b> Determines displaying the toner coverage report on reporting.</p> <p><b>Purpose</b> According to user request, changes the setting.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [COVERAGE]. Highlighted: ON, Non-highlighted: OFF Initial setting: ON</li> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						

Maintenance item No.	Description								
U326	<p><b>Setting the black line cleaning indication</b></p> <p><b>Description</b> Sets whether to display the cleaning guidance when detecting the black line.</p> <p><b>Purpose</b> Displays the cleaning guidance in order to make the call for service with the black line decrease by the rubbish on the platen when scanning from the DP.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select ON or OFF.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ON</td><td>Displays the cleaning guidance</td></tr> <tr> <td>OFF</td><td>Not to display the cleaning guidance</td></tr> <tr> <td>COUNT</td><td>Setting counts of the cleaning guidance indication</td></tr> </tbody> </table> <p>Initial setting: ON</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Setting the count value</b></p> <ol style="list-style-type: none"> <li>1. Select [COUNT].</li> <li>2. Enter a count using the +/- or numeric keys. Setting range: 0 to 999 Initial setting: 8 When setting is 0, the black line cleaning indication is displayed only if the black line is detected.</li> <li>3. Press the start key. The count is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ON	Displays the cleaning guidance	OFF	Not to display the cleaning guidance	COUNT	Setting counts of the cleaning guidance indication
Display	Description								
ON	Displays the cleaning guidance								
OFF	Not to display the cleaning guidance								
COUNT	Setting counts of the cleaning guidance indication								
U328	<p><b>Side ejection setting</b></p> <p><b>Description</b> Sets whether to eject to the side of the machine when an optional curl eliminator is installed.</p> <p><b>Purpose</b> Set according to the preference of the user.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select ON or OFF.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ON</td><td>To eject to the side of the machine</td></tr> <tr> <td>OFF</td><td>Not to eject to the side of the machine</td></tr> </tbody> </table> <p>Initial setting: OFF</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ON	To eject to the side of the machine	OFF	Not to eject to the side of the machine		
Display	Description								
ON	To eject to the side of the machine								
OFF	Not to eject to the side of the machine								

Maintenance item No.	Description						
U332	<p><b>Setting the size conversion factor</b></p> <p><b>Description</b> Sets the coefficient of nonstandard sizes in relation to the A4/Letter size. The coefficient set here is used to convert the black ratio in relation to the A4/Letter size and to display the result in user simulation.</p> <p><b>Purpose</b> To set the coefficient for converting the black ratio for nonstandard sizes in relation to the A4/Letter size.</p> <p><b>Setting</b></p> <div><div><div>1. Press the start key.</div><div>2. Select [CALCULATION RATE].</div><div>3. Change the setting using the +/- keys.</div></div><table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Size parameter</td><td>0.1 to 3.0</td><td>1.0</td></tr></table><div><div>4. Press the start key. The setting is set.</div></div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Description	Setting range	Initial setting	Size parameter	0.1 to 3.0	1.0
Description	Setting range	Initial setting					
Size parameter	0.1 to 3.0	1.0					
U341	<p><b>Specific paper feed location setting for printing function</b></p> <p><b>Description</b> Sets a paper feed location specified for printer output.</p> <p><b>Purpose</b> To use a paper feed location only for printer output. A paper feed location specified for printer output cannot be used for copy output.</p> <p><b>Setting</b></p> <div><div><div>1. Press the start key.</div><div>2. Select the paper feed location for the printer.<div>Two or more cassette can be selected.</div></div><div>3. Press the start key. The setting is set.</div></div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						

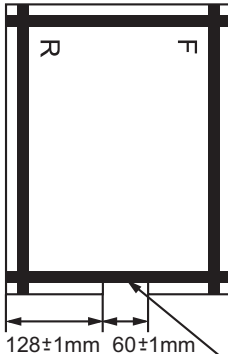
Maintenance item No.	Description														
<b>U342</b>	<p><b>Setting the ejection restriction</b></p> <p><b>Description</b> Sets or cancels the restriction on the number of sheets to be ejected continuously when the internal eject tray is selected as the eject location.</p> <p><b>Purpose</b> According to user request, sets or cancels restriction on the number of sheets.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select ON or OFF.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ON</td><td>Sets restriction on the number of sheets</td></tr> <tr> <td>OFF</td><td>Cancels restriction on the number of sheets</td></tr> </tbody> </table> <p>Initial setting: ON Details of restriction (number of sheets to be ejected continuously after the start key is pressed)</p> <table border="1"> <thead> <tr> <th>Condition</th><th>Number of sheets</th></tr> </thead> <tbody> <tr> <td>When no optional ejection device is installed</td><td>250</td></tr> <tr> <td>When the job separator is installed</td><td>150</td></tr> <tr> <td>When the finisher is installed</td><td>100</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ON	Sets restriction on the number of sheets	OFF	Cancels restriction on the number of sheets	Condition	Number of sheets	When no optional ejection device is installed	250	When the job separator is installed	150	When the finisher is installed	100
Display	Description														
ON	Sets restriction on the number of sheets														
OFF	Cancels restriction on the number of sheets														
Condition	Number of sheets														
When no optional ejection device is installed	250														
When the job separator is installed	150														
When the finisher is installed	100														
<b>U343</b>	<p><b>Switching between duplex/simplex copy mode</b></p> <p><b>Description</b> Switches the initial setting between duplex and simplex copy.</p> <p><b>Purpose</b> To be set according to frequency of use: set to the more frequently used mode.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select ON or OFF.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ON</td><td>Duplex copy</td></tr> <tr> <td>OFF</td><td>Simplex copy</td></tr> </tbody> </table> <p>Initial setting: OFF</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ON	Duplex copy	OFF	Simplex copy								
Display	Description														
ON	Duplex copy														
OFF	Simplex copy														
<b>U345</b>	<p><b>Setting the value for maintenance due indication</b></p> <p><b>Description</b> Sets when to display a message notifying that the time for maintenance is about to be reached, by setting the number of copies that can be made before the current maintenance cycle ends. When the difference between the number of copies of the maintenance cycle and that of the maintenance count reaches the set value, the message is displayed. This maintenance mode is effective for only Japanese specification.</p>														

Maintenance item No.	Description																																			
U402	<p><b>Adjusting margins of image printing</b></p> <p><b>Description</b> Adjusts margins for image printing.</p> <p><b>Purpose</b> Make the adjustment if margins are incorrect.</p> <p><b>Adjustment</b></p> <div><div><div>1. Press the start key.</div><div>2. Select the item to be adjusted.</div></div><table><thead><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr></thead><tbody><tr><td>LEAD</td><td>Printer leading edge margin</td><td>0 to 236</td><td>74</td><td>0.1 mm</td></tr><tr><td>A</td><td>Printer left margin</td><td>-80 to 236</td><td>70</td><td>0.1 mm</td></tr><tr><td>C</td><td>Printer right margin</td><td>-118 to 236</td><td>68</td><td>0.1 mm</td></tr><tr><td>TRAIL</td><td>Printer trailing edge margin</td><td>-118 to 236</td><td>85</td><td>0.1 mm</td></tr><tr><td>TRAIL(DUP)</td><td>Printer trailing edge margin in duplex mode (second side)</td><td>-118 to 236</td><td>140</td><td>0.1 mm</td></tr><tr><td>TRIAL(MP)</td><td>Printer trailing edge margin (MP tray)</td><td>-118 to 236</td><td>55</td><td>0.1 mm</td></tr></tbody></table><div><div><div>3. Press the system menu key.</div><div>4. Press the start key to output a test pattern.</div><div>5. Press the system menu key.</div><div>6. Change the setting value using the +/- or numeric keys.</div></div><div>Increasing the value makes the margin wider, and decreasing it makes the margin narrower.</div></div><div><div><div><div>Ejection direction (reference)</div><div></div></div></div></div><p><b>Figure 1-3-24</b></p><div><div>7. Press the start key. The value is set.</div><div><div><div><b>Caution</b></div><div>Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div></div><div><div><div>U402</div><div>→</div><div><div>U403 (P.1-3-65)</div><div>→</div><div><div>U404 (P.1-3-66)</div></div></div></div><div><div><b>Completion</b></div><div>Press the stop key. The screen for selecting a maintenance item No. is displayed.</div></div></div></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	LEAD	Printer leading edge margin	0 to 236	74	0.1 mm	A	Printer left margin	-80 to 236	70	0.1 mm	C	Printer right margin	-118 to 236	68	0.1 mm	TRAIL	Printer trailing edge margin	-118 to 236	85	0.1 mm	TRAIL(DUP)	Printer trailing edge margin in duplex mode (second side)	-118 to 236	140	0.1 mm	TRIAL(MP)	Printer trailing edge margin (MP tray)	-118 to 236	55	0.1 mm
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TRIAL(MP)	Printer trailing edge margin (MP tray)	-118 to 236	55	0.1 mm																																

Maintenance item No.	Description
U403	<p><b>Adjusting margins for scanning an original on the platen</b></p> <p><b>Description</b> Adjusts margins for scanning the original on the contact glass.</p> <p><b>Purpose</b> Make the adjustment if margins are incorrect.</p> <p><b>Adjustment</b></p> <div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> 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Maintenance item No.	Description																																													
U404	<p><b>Adjusting margins for scanning an original from the DP</b></p> <p><b>Description</b> Adjusts margins for scanning the original from the DP.</p> <p><b>Purpose</b> Make the adjustment if margins are incorrect when the optional DP is used.</p> <p><b>Caution</b> Before making this adjustment, ensure that the following adjustments have been made in maintenance mode</p> <div><div>U402 (P.1-3-64)</div>→<div>U403 (P.1-3-65)</div>→<div>U404</div></div> <p><b>Adjustment</b></p> <div><div>1. Press the start key.</div><div>2. Select the item to be adjusted.</div></div> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>A MARGIN</td><td>Left margin (first page)</td><td>0 to 10.0</td><td>3.0</td><td>0.1 mm</td></tr><tr><td>B MARGIN</td><td>Leading edge margin (first page)</td><td>0 to 10.0</td><td>2.5</td><td>0.1 mm</td></tr><tr><td>C MARGIN</td><td>Right margin (first page)</td><td>0 to 10.0</td><td>3.0</td><td>0.1 mm</td></tr><tr><td>D MARGIN</td><td>Trailing edge margin (first page)</td><td>0 to 10.0</td><td>4.0</td><td>0.1 mm</td></tr><tr><td>A MARGIN(BACK)</td><td>Left margin (second page)</td><td>0 to 10.0</td><td>3.0</td><td>0.1 mm</td></tr><tr><td>B MARGIN(BACK)</td><td>Leading edge margin (second page)</td><td>0 to 10.0</td><td>2.5</td><td>0.1 mm</td></tr><tr><td>C MARGIN(BACK)</td><td>Right margin (second page)</td><td>0 to 10.0</td><td>3.0</td><td>0.1 mm</td></tr><tr><td>D MARGIN(BACK)</td><td>Trailing edge margin (second page)</td><td>0 to 10.0</td><td>4.0</td><td>0.1 mm</td></tr></table> <div><div>3. Press the system menu key.</div><div>4. Place an original on the DP and press the start key to make a test copy.</div><div>5. Press the system menu key.</div><div>6. Change the setting value using the +/- or numeric keys.</div><div>Increasing the value makes the margin wider, and decreasing it makes the margin narrower.</div></div> <div><div><div>Ejection direction (reference)</div><div></div></div><div><div>Leading edge margin (3±1.5mm)</div><div>Left margin (2±1.0mm)</div><div>Right margin (2±1.0mm)</div><div>Trailing edge margin (2±1.0mm)</div></div></div> <p><b>Figure 1-3-26</b></p> <div><div>7. Press the start key. The value is set.</div></div> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	A MARGIN	Left margin (first page)	0 to 10.0	3.0	0.1 mm	B MARGIN	Leading edge margin (first page)	0 to 10.0	2.5	0.1 mm	C MARGIN	Right margin (first page)	0 to 10.0	3.0	0.1 mm	D MARGIN	Trailing edge margin (first page)	0 to 10.0	4.0	0.1 mm	A MARGIN(BACK)	Left margin (second page)	0 to 10.0	3.0	0.1 mm	B MARGIN(BACK)	Leading edge margin (second page)	0 to 10.0	2.5	0.1 mm	C MARGIN(BACK)	Right margin (second page)	0 to 10.0	3.0	0.1 mm	D MARGIN(BACK)	Trailing edge margin (second page)	0 to 10.0	4.0	0.1 mm
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D MARGIN(BACK)	Trailing edge margin (second page)	0 to 10.0	4.0	0.1 mm																																										

Maintenance item No.	Description								
U407	<p><b>Adjusting the leading edge registration for memory image printing</b></p> <p><b>Description</b> Adjusts the leading edge registration during memory copying.</p> <p><b>Purpose</b> Make the adjustment if there is a regular error between the leading edges of the copy image and original during memory copying.</p> <p><b>Caution</b> Before making this adjustment, ensure that the following adjustments have been made in maintenance mode</p> <div><div>U034 (P.1-3-18)</div>→<div>U402 (P.1-3-64)</div>→<div>U066 (P.1-3-24)</div>→<div>U403 (P.1-3-65)</div>→<div>U071 (P.1-3-28)</div>→</div> <div><div>U404 (P.1-3-66)</div>→<div>U407</div></div> <p><b>Adjustment</b></p> <div><div>1. Press the start key.</div><table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Leading edge registration for memory image printing</td><td>-47 to 47</td><td>47</td><td>1.0 mm</td></tr></table><div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Change the setting value using the +/- or numeric keys. For copy example 1, decrease the value. For copy example 2, increase the value.</div></div><div><div><div>↑</div><div>Original</div></div><div><div>↑</div><div>Copy example 1</div></div><div><div>↑</div><div>Copy example 2</div></div></div><p><b>Figure 1-3-27</b></p><div><div>6. Press the start key. The value is set.</div><p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p></div></div>	Description	Setting range	Initial setting	Change in value per step	Leading edge registration for memory image printing	-47 to 47	47	1.0 mm
Description	Setting range	Initial setting	Change in value per step						
Leading edge registration for memory image printing	-47 to 47	47	1.0 mm						

Maintenance item No.	Description																										
U411	<p><b>Adjusting the scanner automatically</b></p> <p><b>Description</b> Uses a specified original and automatically adjusts the following items in the scanner and the DP scanning sections.</p> <p><b>Purpose</b> To perform automatic adjustment of various items in the scanner and the DP scanning sections.</p> <p><b>Method</b> 1. Press the start key. 2. Select the item. The screen for executing is displayed.</p> <table><tr><th>Display</th><th>Description</th><th>Original to be used for adjustment (P/N)</th></tr><tr><td>SCANNER</td><td>Automatic adjustment in the scanner section</td><td>302FZ56990</td></tr><tr><td>DP(FACE UP)</td><td>Automatic adjustment in the DP scanning section (first page)</td><td>2AC68241</td></tr><tr><td>DP(FACE DOWN)</td><td>Automatic adjustment in the DP scanning section (second page)</td><td>2AC68241/303JX57010/ 303JX57020</td></tr></table> <p><b>Remarks</b> Cut the trailing edge of the original as shown when the specified original (P/N: 2AC68241) is used.</p> <div><p style="text-align: center;">Cut with the edge of black belt.</p></div> <p style="text-align: center;"><b>Figure 1-3-28</b></p> <p><b>Method: SCANNER</b> 1. Enter the target values which are shown on the specified original (P/N: 302FZ56990) executing maintenance item U425. 2. Set a specified original (P/N: 302FZ56990) on the platen. 3. Select the item.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>ALL</td><td>Automatic adjustment using the platen for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.</td></tr><tr><td>INPUT</td><td>Automatic adjustment using the platen for: original size magnification/leading edge timing/center line.</td></tr><tr><td>GAMMA</td><td>Automatic adjustment using the platen for: input gamma.</td></tr><tr><td>C.A.</td><td>Automatic adjustment using the platen for: chromatic aberration filter.</td></tr><tr><td>MTF</td><td>Automatic adjustment using the platen for: MTF filter.</td></tr><tr><td>MATRIX</td><td>Automatic adjustment using the platen for: matrix.</td></tr></table> <p>4. Press the start key. Auto adjustment starts. When automatic adjustment has normally completed, [RESULT OK 00] is displayed. If a problem occurs during auto adjustment, [ERROR XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and either repeat the procedure from the beginning, or adjust the remaining items manually by running the corresponding maintenance items.</p> <p>5. To return to the screen for selecting an item, press the stop key.</p>	Display	Description	Original to be used for adjustment (P/N)	SCANNER	Automatic adjustment in the scanner section	302FZ56990	DP(FACE UP)	Automatic adjustment in the DP scanning section (first page)	2AC68241	DP(FACE DOWN)	Automatic adjustment in the DP scanning section (second page)	2AC68241/303JX57010/ 303JX57020	Display	Description	ALL	Automatic adjustment using the platen for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.	INPUT	Automatic adjustment using the platen for: original size magnification/leading edge timing/center line.	GAMMA	Automatic adjustment using the platen for: input gamma.	C.A.	Automatic adjustment using the platen for: chromatic aberration filter.	MTF	Automatic adjustment using the platen for: MTF filter.	MATRIX	Automatic adjustment using the platen for: matrix.
Display	Description	Original to be used for adjustment (P/N)																									
SCANNER	Automatic adjustment in the scanner section	302FZ56990																									
DP(FACE UP)	Automatic adjustment in the DP scanning section (first page)	2AC68241																									
DP(FACE DOWN)	Automatic adjustment in the DP scanning section (second page)	2AC68241/303JX57010/ 303JX57020																									
Display	Description																										
ALL	Automatic adjustment using the platen for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.																										
INPUT	Automatic adjustment using the platen for: original size magnification/leading edge timing/center line.																										
GAMMA	Automatic adjustment using the platen for: input gamma.																										
C.A.	Automatic adjustment using the platen for: chromatic aberration filter.																										
MTF	Automatic adjustment using the platen for: MTF filter.																										
MATRIX	Automatic adjustment using the platen for: matrix.																										

Maintenance item No.	Description															
U411	<b>Method: DP(FACE UP)</b> 1. Set a specified original (P/N: 2AC68241) in the DP. 2. Select [INPUT]. <table><tr><th>Display</th><th>Description</th></tr><tr><td>INPUT</td><td>Automatic adjustment of first page using the DP for: original size magnification/leading edge timing/center line.</td></tr></table>	Display	Description	INPUT	Automatic adjustment of first page using the DP for: original size magnification/leading edge timing/center line.											
	Display	Description														
	INPUT	Automatic adjustment of first page using the DP for: original size magnification/leading edge timing/center line.														
	3. Press the start key. Auto adjustment starts. When automatic adjustment has normally completed, [RESULT OK 00] is displayed. If a problem occurs during auto adjustment, [ERROR XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and either repeat the procedure from the beginning, or adjust the remaining items manually by running the corresponding maintenance items.															
	4. To return to the screen for selecting an item, press the stop key.															
	<b>Method: DP(FACE DOWN)</b> 1. Select the item. The screen for executing is displayed. <table><tr><th>Display</th><th>Description</th></tr><tr><td>NORMAL TARGET</td><td>Uses the value determined using maintenance item U425 as the target data.</td></tr><tr><td>ORIGINAL TARGET</td><td>Uses the specified original for acquiring data as the target data.</td></tr></table>	Display	Description	NORMAL TARGET	Uses the value determined using maintenance item U425 as the target data.	ORIGINAL TARGET	Uses the specified original for acquiring data as the target data.									
	Display	Description														
	NORMAL TARGET	Uses the value determined using maintenance item U425 as the target data.														
	ORIGINAL TARGET	Uses the specified original for acquiring data as the target data.														
	<b>Method: NORMAL TREGET</b> 1. Select the item. <table><tr><th>Display</th><th>Description</th><th>Original to be used for adjustment (P/N)</th></tr><tr><td>ALL</td><td>Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.</td><td>2AC68241/303JX57010/303JX57020</td></tr><tr><td>INPUT</td><td>Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line.</td><td>2AC68241</td></tr><tr><td>GAMMA</td><td>Automatic adjustment of second page using the DP for: tolerance of input gamma.</td><td>303JX57010</td></tr><tr><td>MTF/MATRIX</td><td>Automatic adjustment of second page using the DP for: tolerance of MTF filter and matrix.</td><td>303JX57020</td></tr></table>	Display	Description	Original to be used for adjustment (P/N)	ALL	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.	2AC68241/303JX57010/303JX57020	INPUT	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line.	2AC68241	GAMMA	Automatic adjustment of second page using the DP for: tolerance of input gamma.	303JX57010	MTF/MATRIX	Automatic adjustment of second page using the DP for: tolerance of MTF filter and matrix.	303JX57020
	Display	Description	Original to be used for adjustment (P/N)													
	ALL	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line, input gamma, chromatic aberration filter, MTF filter and matrix.	2AC68241/303JX57010/303JX57020													
INPUT	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/center line.	2AC68241														
GAMMA	Automatic adjustment of second page using the DP for: tolerance of input gamma.	303JX57010														
MTF/MATRIX	Automatic adjustment of second page using the DP for: tolerance of MTF filter and matrix.	303JX57020														
<b>[ALL]</b> 1. Enter the target values which are shown on the specified original (P/N: 2AC68241/303JX57010/303JX57020) executing maintenance item U425. 2. Set specified originals (P/N: 2AC68241/303JX57010/303JX57020) in the DP. Stack the originals in the order of 2AC68241, 303JX57010, and 303JX57020. 3. Press the start key. Auto adjustment starts.																
<b>[INPUT]</b> 1. Enter the target values which are shown on the specified original (P/N: 2AC68241) executing maintenance item U425. 2. Set a specified original (P/N: 2AC24681) in the DP. 3. Press the start key. Auto adjustment starts.																
<b>[GAMMA]</b> 1. Enter the target values which are shown on the specified original (P/N: 303JX57010) executing maintenance item U425. 2. Set a specified original (P/N: 303JX57010) in the DP. 3. Press the start key. Auto adjustment starts.																
<b>[MTF/MATRIX]</b> 1. Enter the target values which are shown on the specified original (P/N: 303JX57020) executing maintenance item U425. 2. Set a specified original (P/N: 303JX57020) in the DP. 3. Press the start key. Auto adjustment starts.																

Maintenance item No.	Description															
U411	<p>When automatic adjustment has normally completed, [RESULT OK 00] is displayed. If a problem occurs during auto adjustment, [ERROR XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and either repeat the procedure from the beginning, or adjust the remaining items manually by running the corresponding maintenance items.</p> <p><b>Method: ORIGINAL TARGET</b></p> <ol style="list-style-type: none"><li>1. Place the specified original for acquiring gamma target data (P/N: 303JX57010) on the platen, and press the start key.</li><li>2. Place the specified original for acquiring matrix target data (P/N: 303JX57010) on the platen, and press the start key.</li><li>3. Select the item.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Original to be used for adjustment (P/N)</th></tr><tr><td>ALL</td><td>Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line, input gamma, chromatic aberration filter, MTF filter and matrix.</td><td>2AC68241/303JX57010/ 303JX57020</td></tr><tr><td>INPUT</td><td>Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line.</td><td>2AC68241</td></tr><tr><td>GAMMA</td><td>Automatic adjustment of second page using the DP for: input gamma.</td><td>303JX57010</td></tr><tr><td>MTF/MATRIX</td><td>Automatic adjustment of second page using the DP for: MTF filter and matrix.</td><td>303JX57020</td></tr></table> <p><b>[ALL]</b></p> <ol style="list-style-type: none"><li>1. Set specified originals (P/N: 2AC68241/303JX57010/303JX57020) in the DP. Stack the originals in the order of 2AC68241, 303JX57010, and 303JX57020.</li><li>2. Press the start key. Auto adjustment starts.</li></ol> <p><b>[INPUT]</b></p> <ol style="list-style-type: none"><li>1. Set a specified original (P/N: 2AC24681) in the DP.</li><li>2. Press the start key. Auto adjustment starts.</li></ol> <p><b>[GAMMA]</b></p> <ol style="list-style-type: none"><li>1. Set a specified original (P/N: 303JX57010) in the DP.</li><li>2. Press the start key. Auto adjustment starts.</li></ol> <p><b>[MTF/MATRIX]</b></p> <ol style="list-style-type: none"><li>1. Set a specified original (P/N: 303JX57020) in the DP.</li><li>2. Press the start key. Auto adjustment starts.</li></ol> <p>When automatic adjustment has normally completed, [RESULT OK 00] is displayed. If a problem occurs during auto adjustment, [ERROR XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and either repeat the procedure from the beginning, or adjust the remaining items manually by running the corresponding maintenance items.</p>	Display	Description	Original to be used for adjustment (P/N)	ALL	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line, input gamma, chromatic aberration filter, MTF filter and matrix.	2AC68241/303JX57010/ 303JX57020	INPUT	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line.	2AC68241	GAMMA	Automatic adjustment of second page using the DP for: input gamma.	303JX57010	MTF/MATRIX	Automatic adjustment of second page using the DP for: MTF filter and matrix.	303JX57020
Display	Description	Original to be used for adjustment (P/N)														
ALL	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line, input gamma, chromatic aberration filter, MTF filter and matrix.	2AC68241/303JX57010/ 303JX57020														
INPUT	Automatic adjustment of second page using the DP for: original size magnification/leading edge timing/ center line.	2AC68241														
GAMMA	Automatic adjustment of second page using the DP for: input gamma.	303JX57010														
MTF/MATRIX	Automatic adjustment of second page using the DP for: MTF filter and matrix.	303JX57020														

Maintenance item No.	Description	
U411	<b>Error Codes</b>	
	<b>Codes</b>	<b>Description</b>
	ERROR 01	Black band detection error (scanner leading edge registration)
	ERROR 02	Black band detection error (scanner center line)
	ERROR 03	Black band detection error (scanner main scanning direction magnification)
	ERROR 04	Black band is not detected (scanner leading edge registration)
	ERROR 05	Black band is not detected (scanner center line)
	ERROR 06	Black band is not detected (scanner main scanning direction magnification)
	ERROR 07	Black band is not detected (scanner auxiliary scanning direction magnification)
	ERROR 08	Black band is not detected (DP main scanning direction magnification far end)
	ERROR 09	Black band is not detected (DP main scanning direction magnification near end)
	ERROR 0a	Black band is not detected (DP auxiliary scanning direction magnification leading edge)
	ERROR 0b	Black band is not detected (DP auxiliary scanning direction magnification leading edge original check)
	ERROR 0c	Black band is not detected (DP auxiliary scanning direction trailing edge)
	ERROR 0d	Black band is not detected (DP auxiliary scanning direction trailing edge 2)
	ERROR 0e	DMA time out
	ERROR 0f	Auxiliary scanning direction magnification error
	ERROR 10	Auxiliary scanning direction leading edge detection error
	ERROR 11	Auxiliary scanning direction trailing edge detection error
	ERROR 12	Auxiliary scanning direction skew 1.5 error
	ERROR 13	Maintenance request error
	ERROR 14	Main scanning direction center line error
	ERROR 15	Main scanning direction skew 1.5 error
	ERROR 16	Main scanning direction magnification error
	ERROR 17	Carriage error
	ERROR 18	Service call error
	ERROR 19	DP status error
	ERROR 1a	DP open error
	ERROR 1b	Original is not detected
	ERROR 2X	N950 patch for the original error
	ERROR 3X	N850 patch for the original error
	ERROR 4X	N770 patch for the original error
	ERROR 5X	N650 patch for the original error
	ERROR 6X	N500 patch for the original error
	ERROR 7X	N300 patch for the original error
	ERROR 8X	N300 patch for the original error
	ERROR 9X	N950 patch for the original error
	ERROR aX	Cyan patch for the original error
	ERROR bX	Magenta patch for the original error
	ERROR cX	Yellow patch for the original error
	ERROR dX	Red patch for the original error
	ERROR eX	Green patch for the original error
	ERROR fX	Blue patch for the original error
	ERROR ff	Other error
	<b>Completion</b> Press the stop key. The screen for selecting a maintenance item is displayed. If the stop key is pressed during auto adjustment, adjustment stops and no settings are changed.	

Maintenance item No.	Description																																											
U425	<p><b>Setting the target</b></p> <p><b>Description</b> The value that is indicated on the back of the chart to be used for adjustment should be entered.</p> <p><b>Purpose</b> Performs data input in order to correct for differences in originals during automatic adjustment.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item. The screen for executing is displayed.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Original to be used for adjustment (P/N)</th></tr><tr><td>CCD</td><td>Entering the target values for scanner automatic adjustment</td><td>302FZ56990</td></tr><tr><td>CIS</td><td>Entering the target values for DP automatic adjustment</td><td>2AC68241/303JX57010/ 303JX57020</td></tr></table> <p><b>Setting: CCD</b></p> <ol style="list-style-type: none"><li>1. Select the item to be set.</li></ol> <table><tr><th>Display</th><th>Description</th></tr><tr><td>N850</td><td>Setting the N850 patch for the original for adjustment</td></tr><tr><td>N500</td><td>Setting the N500 patch for the original for adjustment</td></tr><tr><td>N200</td><td>Setting the N200 patch for the original for adjustment</td></tr><tr><td>CYAN</td><td>Setting the cyan patch for the original for adjustment</td></tr><tr><td>MAGENTA</td><td>Setting the magenta patch for the original for adjustment</td></tr><tr><td>YELLOW</td><td>Setting the yellow patch for the original for adjustment</td></tr><tr><td>RED</td><td>Setting the red patch for the original for adjustment</td></tr><tr><td>GREEN</td><td>Setting the green patch for the original for adjustment</td></tr><tr><td>BLUE</td><td>Setting the blue patch for the original for adjustment</td></tr><tr><td>ADJUST ORIGINAL</td><td>Setting the main and auxiliary scanning directions</td></tr></table> <ol style="list-style-type: none"><li>2. Select the item to be set.</li><li>3. Change the setting value using the +/- or numeric keys.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th></tr><tr><td>L</td><td>Setting the L value</td><td>0.0 to 100.0</td></tr><tr><td>a</td><td>Setting the a value</td><td>-200.0 to 200.0</td></tr><tr><td>b</td><td>Setting the b value</td><td>-200.0 to 200.0</td></tr></table> <ol style="list-style-type: none"><li>4. Press the start key. The value is set.</li><li>5. To return to the screen for selecting an item, press the stop key.</li></ol> <p><b>Setting: ADJUST ORIGINAL/MAIN</b></p> <ol style="list-style-type: none"><li>1. Measure distance from the left edge of the original for adjustment to the black band in three points. Measurement procedure</li></ol> <ol style="list-style-type: none"><li>1) Measure the distances A (50 mm), B (105 mm) and C (190 mm) along the auxiliary scanning direction.</li><li>2) Apply the following formula for the values obtained: <math>((A + C) / 2 + B) / 2</math></li></ol> <ol style="list-style-type: none"><li>2. Enter the values solved using the +/- or numeric keys in [MAIN ADJ].</li><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol> <p><b>Setting: ADJUST ORIGINAL/SUB</b></p> <ol style="list-style-type: none"><li>1. Measure distance from the leading edge of the original for adjustment to the black band in three points. Measurement procedure</li></ol> <ol style="list-style-type: none"><li>1) Measure the distances D (30 mm), E (148.5 mm) and C (267 mm) along the main scanning direction.</li><li>2) Apply the following formula for the values obtained: <math>((D + F) / 2 + E) / 2</math></li></ol> <ol style="list-style-type: none"><li>2. Enter the values solved using the +/- or numeric keys in [SUB ADJ].</li><li>3. Press the start key. The value is set.</li><li>4. To return to the screen for selecting an item, press the stop key.</li></ol>	Display	Description	Original to be used for adjustment (P/N)	CCD	Entering the target values for scanner automatic adjustment	302FZ56990	CIS	Entering the target values for DP automatic adjustment	2AC68241/303JX57010/ 303JX57020	Display	Description	N850	Setting the N850 patch for the original for adjustment	N500	Setting the N500 patch for the original for adjustment	N200	Setting the N200 patch for the original for adjustment	CYAN	Setting the cyan patch for the original for adjustment	MAGENTA	Setting the magenta patch for the original for adjustment	YELLOW	Setting the yellow patch for the original for adjustment	RED	Setting the red patch for the original for adjustment	GREEN	Setting the green patch for the original for adjustment	BLUE	Setting the blue patch for the original for adjustment	ADJUST ORIGINAL	Setting the main and auxiliary scanning directions	Display	Description	Setting range	L	Setting the L value	0.0 to 100.0	a	Setting the a value	-200.0 to 200.0	b	Setting the b value	-200.0 to 200.0
Display	Description	Original to be used for adjustment (P/N)																																										
CCD	Entering the target values for scanner automatic adjustment	302FZ56990																																										
CIS	Entering the target values for DP automatic adjustment	2AC68241/303JX57010/ 303JX57020																																										
Display	Description																																											
N850	Setting the N850 patch for the original for adjustment																																											
N500	Setting the N500 patch for the original for adjustment																																											
N200	Setting the N200 patch for the original for adjustment																																											
CYAN	Setting the cyan patch for the original for adjustment																																											
MAGENTA	Setting the magenta patch for the original for adjustment																																											
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Display	Description	Setting range																																										
L	Setting the L value	0.0 to 100.0																																										
a	Setting the a value	-200.0 to 200.0																																										
b	Setting the b value	-200.0 to 200.0																																										

Maintenance item No.	Description			
U425	<b>Setting: CIS</b>			
	1. Select the item to be set.			
	Display	Description		
	N950	Setting the N950 patch for the original for adjustment		
	N850	Setting the N850 patch for the original for adjustment		
	N770	Setting the N770 patch for the original for adjustment		
	N650	Setting the N650 patch for the original for adjustment		
	N500	Setting the N500 patch for the original for adjustment		
	N300	Setting the N300 patch for the original for adjustment		
	CYAN	Setting the cyan patch for the original for adjustment		
U425	MAGENTA	Setting the magenta patch for the original for adjustment		
	YELLOW	Setting the yellow patch for the original for adjustment		
	RED	Setting the red patch for the original for adjustment		
	GREEN	Setting the green patch for the original for adjustment		
	BLUE	Setting the blue patch for the original for adjustment		
	2. Select the item to be set.			
	3. Change the setting value using the +/- or numeric keys.			
	Display	Description	Setting range	
	L	Setting the L value	0.0 to 100.0	
	a	Setting the a value	-200.0 to 200.0	
U425	b	Setting the b value	-200.0 to 200.0	
	4. Press the start key. The value is set.			
	5. To return to the screen for selecting an item, press the stop key.			
	<b>Completion</b>			
	Press the stop key. The screen for selecting a maintenance item No. is displayed.			
	U510	<b>Setting the enterprise mode</b>		
		<b>Description</b>		
		Sets whether or not the enterprise mode setting is enabled.		
		<b>Purpose</b>		
		According to user request, changes the setting.		
<b>Setting</b>				
1. Press the start key.				
2. Select ON or OFF.				
Display		Description		
ON		Enterprise mode setting is enabled.		
U510	OFF	Enterprise mode setting is disabled.		
	Initial setting: ON (Inch specifications)/OFF (Metric specifications)			
	3. Press the start key. The setting is set.			
	<b>Completion</b>			
	Press the stop key. The screen for selecting a maintenance item No. is displayed.			

Maintenance item No.	Description																
U901	<p><b>Checking/clearing copy counts by paper feed locations</b></p> <p><b>Description</b> Displays or clears copy counts by paper feed locations.</p> <p><b>Purpose</b> To check the time to replace consumable parts. Also to clear the counts after replacing the consumable parts.</p> <p><b>Method</b> Press the start key. The counts by paper feed locations are displayed.</p> <table><tr><th>Display</th><th>Paper feed locations</th></tr><tr><td>MP TRAY</td><td>MP tray</td></tr><tr><td>CASSETTE 1</td><td>Cassette 1</td></tr><tr><td>CASSETTE 2</td><td>Cassette 2</td></tr><tr><td>CASSETTE 3</td><td>Optional cassette 3</td></tr><tr><td>CASSETTE 4</td><td>Optional cassette 4</td></tr><tr><td>LCF</td><td>Optional 3000-sheet paper feeder</td></tr><tr><td>DUPLEX</td><td>Duplex section</td></tr></table> <p>When an optional paper feed device is not installed, the corresponding count is not displayed.</p> <p><b>Clearing</b></p> <ol style="list-style-type: none"><li>1. Select the count to be cleared.</li><li>2. Press the start key. The count is cleared.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Paper feed locations	MP TRAY	MP tray	CASSETTE 1	Cassette 1	CASSETTE 2	Cassette 2	CASSETTE 3	Optional cassette 3	CASSETTE 4	Optional cassette 4	LCF	Optional 3000-sheet paper feeder	DUPLEX	Duplex section
Display	Paper feed locations																
MP TRAY	MP tray																
CASSETTE 1	Cassette 1																
CASSETTE 2	Cassette 2																
CASSETTE 3	Optional cassette 3																
CASSETTE 4	Optional cassette 4																
LCF	Optional 3000-sheet paper feeder																
DUPLEX	Duplex section																
U902	<p><b>Checking/clearing the punch-hole scrap counter</b></p> <p><b>Description</b> To set the punch limit, display and clear the punch counter of optional 3000-sheet document finisher.</p> <p><b>Purpose</b> To set the maximum number of punches possible in order to instruct the user of the time to replace punch waste. Also, used to manually clear the punch-hole scrap count if a message requiring collection of punch-hole scrap is shown on the touch panel after collection. If punch-hole scrap is collected with the machine power turned off, the punch-hole scrap count is not cleared and consequently this problem occurs.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>PUNCH LIMIT</td><td>The maximum number of punches (maximum number of punching times)</td><td>0 to 999000</td><td>35000</td></tr><tr><td>PUNCH COUNT</td><td>Punch-hole scrap count (current number of punching times)</td><td>0 to 999999</td><td>0</td></tr></table> <ol style="list-style-type: none"><li>3. Change the setting using the numeric keys or clear key.</li><li>4. Press the start key. The value is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	PUNCH LIMIT	The maximum number of punches (maximum number of punching times)	0 to 999000	35000	PUNCH COUNT	Punch-hole scrap count (current number of punching times)	0 to 999999	0				
Display	Description	Setting range	Initial setting														
PUNCH LIMIT	The maximum number of punches (maximum number of punching times)	0 to 999000	35000														
PUNCH COUNT	Punch-hole scrap count (current number of punching times)	0 to 999999	0														

Maintenance item No.	Description						
U903	<p><b>Checking/clearing the paper jam counts</b></p> <p><b>Description</b> Displays or clears the jam counts by jam locations.</p> <p><b>Purpose</b> To check the paper jam status. Also to clear the jam counts after replacing consumable parts.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item. The screen for executing is displayed.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>COUNT</td><td>Displays/clears the jam counts</td></tr> <tr> <td>TOTAL COUNT</td><td>Displays the total jam counts</td></tr> </tbody> </table> <p><b>Method: Displays/clears the jam counts</b></p> <ol style="list-style-type: none"> <li>1. Select [COUNT]. The count for jam detection by type is displayed.</li> <li>2. Change the screen using the cursor up/down keys.</li> <li>3. Select the counts for all jam codes and press the clear key.</li> <li>4. Press the start key. The count is cleared. The individual counter cannot be cleared.</li> <li>5. To return to the screen for selecting an item, press the stop key.</li> </ol> <p><b>Method: Displays the total jam counts</b></p> <ol style="list-style-type: none"> <li>1. Select [TOTAL COUNT]. The total number of jam counts by type is displayed.</li> <li>2. Change the screen using the cursor up/down keys. The total number of jam count cannot be cleared.</li> <li>3. To return to the screen for selecting an item, press the stop key.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	COUNT	Displays/clears the jam counts	TOTAL COUNT	Displays the total jam counts
Display	Description						
COUNT	Displays/clears the jam counts						
TOTAL COUNT	Displays the total jam counts						
U904	<p><b>Checking/clearing the service call counts</b></p> <p><b>Description</b> Displays or clears the service call code counts by types.</p> <p><b>Purpose</b> To check the service call code status by types. Also to clear the service call code counts after replacing consumable parts.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item. The screen for executing is displayed.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>COUNT</td><td>Displays/clears the service call counts</td></tr> <tr> <td>TOTAL COUNT</td><td>Displays the total service call counts</td></tr> </tbody> </table> <p><b>Method: Displays/clears the service call counts</b></p> <ol style="list-style-type: none"> <li>1. Select [COUNT]. The count for service call detection by type is displayed.</li> <li>2. Change the screen using the cursor up/down keys.</li> <li>3. Select the counts for all service call codes and press the clear key.</li> <li>4. Press the start key. The count is cleared. The individual counter cannot be cleared.</li> <li>5. To return to the screen for selecting an item, press the stop key.</li> </ol> <p><b>Method: Displays the total jam counts</b></p> <ol style="list-style-type: none"> <li>1. Select [TOTAL COUNT]. The total number of service call counts by type is displayed.</li> <li>2. Change the screen using the cursor up/down keys. The total number of service call count cannot be cleared.</li> <li>3. To return to the screen for selecting an item, press the stop key.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	COUNT	Displays/clears the service call counts	TOTAL COUNT	Displays the total service call counts
Display	Description						
COUNT	Displays/clears the service call counts						
TOTAL COUNT	Displays the total service call counts						

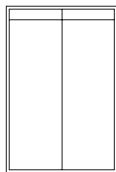
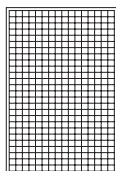
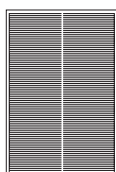
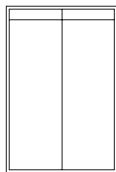
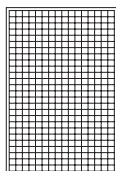
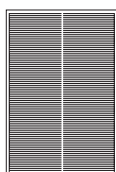
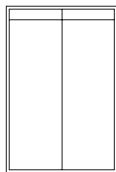
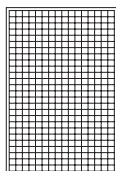
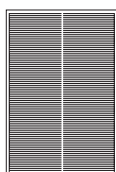
Maintenance item No.	Description																								
<b>U905</b>	<p><b>Checking/clearing counts by optional devices</b></p> <p><b>Description</b> Displays or clears the counts of optional DP or finisher.</p> <p><b>Purpose</b> To check the use of optional DP and finisher. Also to clear the counts after replacing consumable parts.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the device, the count of which is to be checked. The count of the selected device is displayed.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>DP</td><td>Counts of optional DP</td></tr> <tr> <td>FINISHER</td><td>Counts of optional finisher</td></tr> </tbody> </table> <p>DP</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ADP</td><td>No. of single-sided originals that has passed through the DP</td></tr> <tr> <td>RADP</td><td>No. of double-sided originals that has passed through the DP</td></tr> </tbody> </table> <p>Finisher</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>CP CNT</td><td>No. of copies that has passed</td></tr> <tr> <td>STAPLE</td><td>Frequency the stapler has been activated</td></tr> <tr> <td>PUNCH</td><td>Frequency the punch has been activated</td></tr> <tr> <td>STACK</td><td>Frequency the stacker has been activated</td></tr> <tr> <td>SADDLE</td><td>Frequency the center holding has been activated</td></tr> </tbody> </table> <p><b>Clearing</b></p> <ol style="list-style-type: none"> <li>1. Select the item to be cleared. To clear the counts for all, press the clear key.</li> <li>2. Press the start key. The count is cleared.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	DP	Counts of optional DP	FINISHER	Counts of optional finisher	Display	Description	ADP	No. of single-sided originals that has passed through the DP	RADP	No. of double-sided originals that has passed through the DP	Display	Description	CP CNT	No. of copies that has passed	STAPLE	Frequency the stapler has been activated	PUNCH	Frequency the punch has been activated	STACK	Frequency the stacker has been activated	SADDLE	Frequency the center holding has been activated
Display	Description																								
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STACK	Frequency the stacker has been activated																								
SADDLE	Frequency the center holding has been activated																								
<b>U906</b>	<p><b>Resetting partial operation control</b></p> <p><b>Description</b> Resets the service call code for partial operation control.</p> <p><b>Purpose</b> To be reset after partial operation is performed due to problems in the cassettes or other sections, and the related parts are serviced.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXECUTE] on the touch panel.</li> <li>3. Press the start key to reset partial operation control. The maintenance mode is exited, and the machine returns to the same status as when the main power switch is turned on.</li> </ol>																								
<b>U908</b>	<p><b>Checking the total counter value</b></p> <p><b>Description</b> Displays the total counter value.</p> <p><b>Purpose</b> To check the total counter value.</p> <p><b>Method</b> Press the start key. The screen for total count value is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																								

Maintenance item No.	Description
U910	<p><b>Clearing the black ratio data</b></p> <p><b>Description</b> Clears the accumulated black ratio data for A4 sheet.</p> <p><b>Purpose</b> To clear data as required at times such as during maintenance service.</p> <p><b>Method</b>  <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXCUTE] on the touch panel.</li> <li>3. Press the start key. The accumulated black ratio data is cleared.</li> </ol> </p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>
U911	<p><b>Checking/clearing copy counts by paper sizes</b></p> <p><b>Description</b> Displays and clears the paper feed counts by paper sizes.</p> <p><b>Purpose</b> To check or clear the counts after replacing consumable parts.</p> <p><b>Method</b> Press the start key. The screen for the paper feed counts by paper size is displayed.</p> <p><b>Clearing</b>  <ol style="list-style-type: none"> <li>1. Select the paper size. To clear all counts, press the clear key.</li> <li>2. Press the start key. The count is cleared.</li> </ol> </p> <p><b>Completion</b> Press the stop/clear key. The screen for selecting a maintenance item No. is displayed.</p>
U920	<p><b>Checking the copy counts</b></p> <p><b>Description</b> Checks the copy counts.</p> <p><b>Purpose</b> To check the copy counts.</p> <p><b>Method</b> Press the start key. The current counts of copy counter, printer counter and fax counter are displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>
U927	<p><b>Clearing the all copy counts and machine life counts (one time only)</b></p> <p><b>Description</b> Resets all of the counts back to 0.</p> <p><b>Purpose</b> To start the counters with value 0 when installing the machine.</p> <p><b>Supplement</b> The total account counter and the machine life counter can be cleared only once if all count values are 1000 or less.</p> <p><b>Method</b>  <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXECUTE] on the touch panel.</li> <li>3. Press the start key. All copy counts and machine life counts are cleared. [CANNOT EXECUTE] is displayed if the count cannot be cleared.</li> </ol> </p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>
U928	<p><b>Checking machine life counts</b></p> <p><b>Description</b> Displays the machine life counts.</p> <p><b>Purpose</b> To check the machine life counts.</p> <p><b>Method</b> Press the start key. The current machine life counts is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>

Maintenance item No.	Description								
U933	<p><b>Setting the backup kit</b></p> <p><b>Description</b> Initializes optional data backup kit (CF) and restore the backup data.</p> <p><b>Purpose</b> To initialize the CF when call for service (C0700) occurs. Also, to restore data when the hard disk has been damaged.</p> <p><b>Method</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>INITIALIZE CF</td><td>Initializes the data backup kit (CF) and backs up the job accounting data in the hard disk into the data backup kit (CF).</td></tr> <tr> <td>FAX IMAGE</td><td>Prints the fax reception data backed up in the data backup kit (CF).</td></tr> <tr> <td>JOB ACCOUNTING</td><td>Restores the job accounting data stored in the data backup kit (CF) to the hard disk.</td></tr> </tbody> </table> <ol style="list-style-type: none"> <li>3. Press the start key. The selected item is executed.</li> </ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	INITIALIZE CF	Initializes the data backup kit (CF) and backs up the job accounting data in the hard disk into the data backup kit (CF).	FAX IMAGE	Prints the fax reception data backed up in the data backup kit (CF).	JOB ACCOUNTING	Restores the job accounting data stored in the data backup kit (CF) to the hard disk.
Display	Description								
INITIALIZE CF	Initializes the data backup kit (CF) and backs up the job accounting data in the hard disk into the data backup kit (CF).								
FAX IMAGE	Prints the fax reception data backed up in the data backup kit (CF).								
JOB ACCOUNTING	Restores the job accounting data stored in the data backup kit (CF) to the hard disk.								
U935	<p><b>Relay board maintenance</b></p> <p><b>Description</b> Sets the machine status temporarily when call for service (C0060) occurs. However, after the setting, call for service (C0060) occurs again when progress of period.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Select the item.</li> </ol> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MODE 0</td><td>Setting mode: OFF</td></tr> <tr> <td>MODE 1</td><td>Setting mode: ON (Usable up to three times of use)</td></tr> </tbody> </table> <p>Initial setting: MODE 0</p> <ol style="list-style-type: none"> <li>3. Press the start key. The setting is set.</li> <li>4. Turn the main power switch off and on.</li> </ol> <p><b>Supplement</b> After removing the cause of the problem, be sure to change the setting in OFF.</p>	Display	Description	MODE 0	Setting mode: OFF	MODE 1	Setting mode: ON (Usable up to three times of use)		
Display	Description								
MODE 0	Setting mode: OFF								
MODE 1	Setting mode: ON (Usable up to three times of use)								

Maintenance item No.	Description															
U942	<p><b>Setting of amount of slack for feeding from DP</b></p> <p><b>Description</b> Adjusts the amount of slack generated when the optional DP is used.</p> <p><b>Purpose</b> Use this mode if an original non-feed jam, oblique feed or wrinkling of original occurs when the DP is used.</p> <p><b>Setting</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the item to be adjusted.</li></ol> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>REGST</td><td>Amount of slack in the reading original from the DP</td><td>-31 to 31</td><td>0</td><td>0.17 mm</td></tr><tr><td>REGST MIX</td><td>Amount of slack in the reading original from the DP in the auto selection mode</td><td>-31 to 31</td><td>0</td><td>0.17 mm</td></tr></table> <ol style="list-style-type: none"><li>3. Press the system menu key.</li><li>4. Place an original on the DP and press the start key to make a test copy.</li><li>5. Press the system menu key.</li><li>6. Change the setting value using the +/- or numeric keys. The greater the value, the larger the amount of slack; the smaller the value, the smaller the amount of slack. If an original non-feed jam or oblique feed occurs, increase the setting value. If wrinkling of original occurs, decrease the value.</li><li>7. Press the start key. The setting is set.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	REGST	Amount of slack in the reading original from the DP	-31 to 31	0	0.17 mm	REGST MIX	Amount of slack in the reading original from the DP in the auto selection mode	-31 to 31	0	0.17 mm
Display	Description	Setting range	Initial setting	Change in value per step												
REGST	Amount of slack in the reading original from the DP	-31 to 31	0	0.17 mm												
REGST MIX	Amount of slack in the reading original from the DP in the auto selection mode	-31 to 31	0	0.17 mm												
U984	<p><b>Checking the developing unit number</b></p> <p><b>Description</b> Displays the developing unit number.</p> <p><b>Purpose</b> To check the developing unit number.</p> <p><b>Method</b> Press the start key. The number is displayed.</p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>															
U985	<p><b>Displaying the developing unit history</b></p> <p><b>Description</b> Displays the past record of machine number and the developing counter.</p> <p><b>Purpose</b> To check the count value machine number and the developing counter.</p> <p><b>Method</b> Press the start key. Past record of 5 cases is displayed.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>MACHINE No.1 to 5</td><td>Past record of machine number</td></tr><tr><td>COUNT 1 to 5</td><td>Past record of developing counter</td></tr></table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MACHINE No.1 to 5	Past record of machine number	COUNT 1 to 5	Past record of developing counter									
Display	Description															
MACHINE No.1 to 5	Past record of machine number															
COUNT 1 to 5	Past record of developing counter															

Maintenance item No.	Description						
<b>U989</b>	<p><b>HDD scandisk</b></p> <p><b>Description</b> Restores data in the hard disk by scanning the disk.</p> <p><b>Purpose</b> If power is turned off while accessing to the hard disk is performed, the control information in the hard disk drive may be damaged. Use this mode to restore the data.</p> <p><b>Method</b>  <ol style="list-style-type: none"> <li>1. Press the start key.</li> <li>2. Press [EXECUTE] on the touch panel.</li> <li>3. Press the start key. When scanning of the disk is complete, the execution result is displayed.</li> </ol> </p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
<b>U990</b>	<p><b>Checking/clearing the time for the exposure lamp to light</b></p> <p><b>Description</b> Displays, clears or changes the accumulated time for the exposure lamp to light.</p> <p><b>Purpose</b> To check duration of use of the exposure lamp. Also to clear the accumulated time for the lamp after replacement.</p> <p><b>Method</b> Press the start key. The accumulated time of illumination for the exposure lamp is displayed in minutes.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>CCD</td><td>Accumulated time for the exposure lamp</td></tr> <tr> <td>CIS</td><td>Accumulated time for CIS</td></tr> </tbody> </table> <p><b>Clearing</b>  <ol style="list-style-type: none"> <li>1. Select the item to be cleared.</li> <li>2. Press the start key. The accumulated time is cleared.</li> </ol> </p> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	CCD	Accumulated time for the exposure lamp	CIS	Accumulated time for CIS
Display	Description						
CCD	Accumulated time for the exposure lamp						
CIS	Accumulated time for CIS						
<b>U991</b>	<p><b>Checking the scanner count</b></p> <p><b>Description</b> Displays the scanner operation count.</p> <p><b>Purpose</b> To check the status of use of the scanner.</p> <p><b>Method</b> Press the start key.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>COPY SCAN COUNT</td><td>Scanner operation count for copying</td></tr> <tr> <td>OTHERS SCAN CNT</td><td>Scanner operation count except for copying</td></tr> </tbody> </table> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	COPY SCAN COUNT	Scanner operation count for copying	OTHERS SCAN CNT	Scanner operation count except for copying
Display	Description						
COPY SCAN COUNT	Scanner operation count for copying						
OTHERS SCAN CNT	Scanner operation count except for copying						

Maintenance item No.	Description												
U993	<p><b>Outputting a VTC-PG pattern</b></p> <p><b>Description</b> Selects and outputs a VTC-PG pattern created in the machine.</p> <p><b>Purpose</b> When performing respective image printing adjustments, used to check the machine status apart from that of the scanner with a non-scanned output VTC-PG pattern.</p> <p><b>Method</b></p> <ol style="list-style-type: none"><li>1. Press the start key.</li><li>2. Select the VTC-PG pattern to be output.</li></ol> <table><tr><th>Display</th><th>PG pattern to be output</th><th>Purpose</th></tr><tr><td>PG1</td><td></td><td>Leading edge registration adjustment Center line adjustment Margin adjustment</td></tr><tr><td>PG2</td><td></td><td>Lateral squareness adjustment Magnification adjustment</td></tr><tr><td>PG3</td><td></td><td>Driving unevenness of drum</td></tr></table> <ol style="list-style-type: none"><li>3. Press the system menu key.</li><li>4. Press the start key. A VTC-PG pattern is output.</li><li>5. To return to the screen for selecting an item, press the system menu key.</li></ol> <p><b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	PG pattern to be output	Purpose	PG1		Leading edge registration adjustment Center line adjustment Margin adjustment	PG2		Lateral squareness adjustment Magnification adjustment	PG3		Driving unevenness of drum
Display	PG pattern to be output	Purpose											
PG1		Leading edge registration adjustment Center line adjustment Margin adjustment											
PG2		Lateral squareness adjustment Magnification adjustment											
PG3		Driving unevenness of drum											



## **1-4-1 Paper misfeed detection**

### **(1) Paper misfeed indication**

When a paper misfeed occurs, the machine immediately stops copying and displays the jam location on the operation panel.

Paper misfeed counts sorted by the detection condition can be checked in maintenance item U903.

To remove paper jammed in the machine, open the front cover, left cover or pull the cassette out.

To remove original jammed in the optional DP, open the document processor top cover or document processor reverse unit.

To remove the jammed paper in optional document finisher, detach the finisher from the machine.

Paper misfeed detection can be reset by opening and closing the respective covers to turn safety switch off and on.

(2) Paper misfeed detection conditions

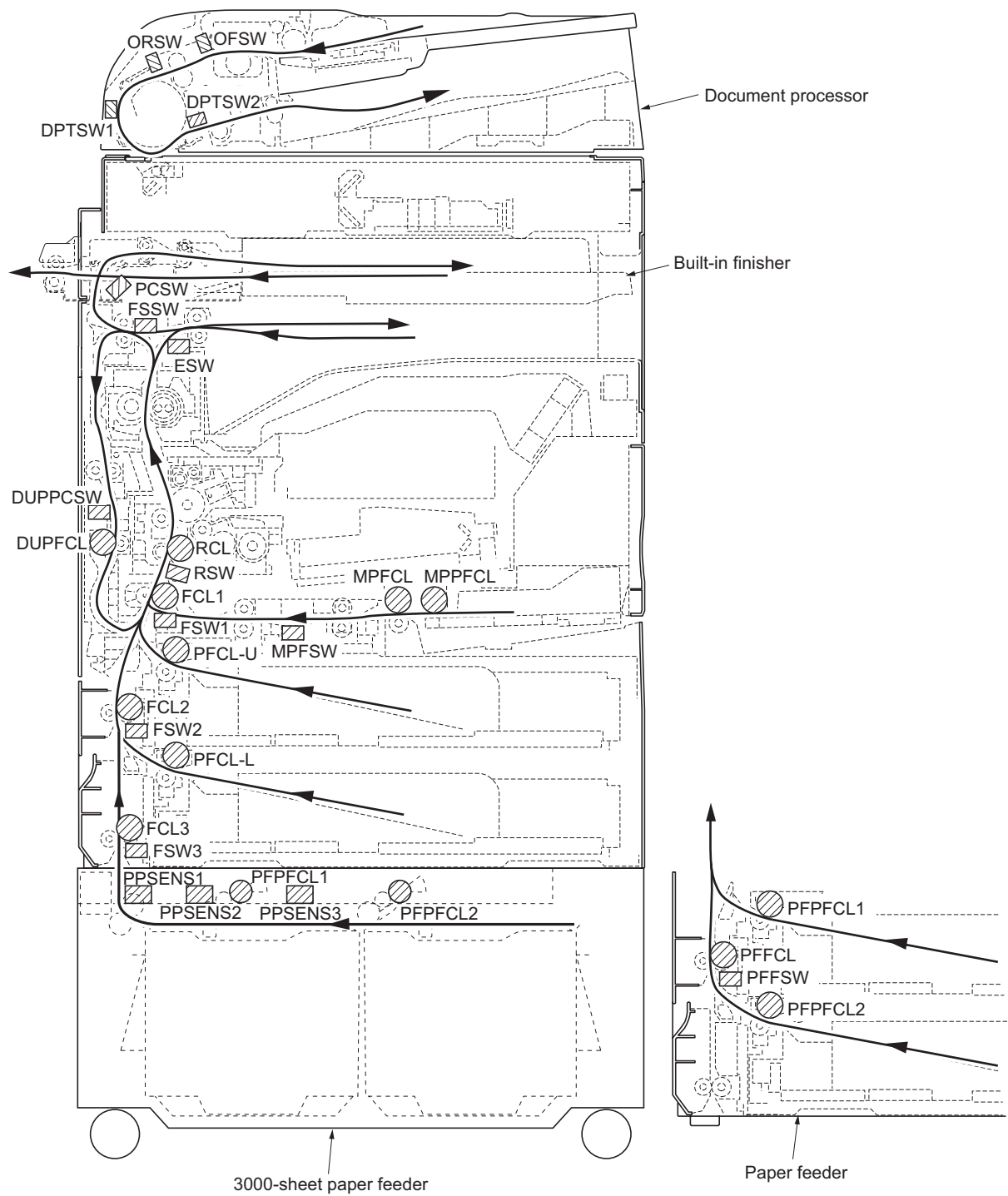


Figure 1-4-1

Section	Description	Conditions	Specified time
System	04 Cover open	Cover is open during copying.	-
	05 Secondary paper feed does not start	Secondary paper feed does not start within specified time of arrival of paper at the registration section.	30 s
	09 3000-sheet paper feeder sequence error jam	A communication sequence error occurs between the machine and the 3000-sheet paper feeder.	-
Paper feed section	10 No paper feed from cassette 1	Feed switch 1 (FSW1) does not turn on within the specified time of upper paper feed clutch (PFCL-U) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time.	1489 ms (30 ppm)/ 1152 ms (40/50 ppm)
	11 No paper feed from cassette 2	Feed switch 2 (FSW2) does not turn on within the specified time of lower paper feed clutch (PFCL-L) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time.	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
	12 No paper feed from optional cassette 3	Feed switch 3 (FSW3) does not turn on within the specified time of paper feeder paper feed clutch 1 (PFPFCL1) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time (paper feed from optional paper feeder).	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
		Feed switch 3 (FSW3) does not turn on within the specified time of paper feeder paper feed clutch 1 (PFPFCL1) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time (paper feed from optional 3000-sheet paper feeder).	2044 ms (30 ppm)/ 1582 ms (40/50 ppm)
	13 No paper feed from optional cassette 4	The paper feeder feed switch (PFFSW) does not turn on within the specified time of paper feeder paper feed clutch 2 (PFPFCL2) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time (paper feed from optional paper feeder).	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
	14 No paper feed from MP tray	The MP feed switch (MPFSW) does not turn on within the specified time of the MP paper feed clutch (MPPFCL) turning on; the clutch is then successively turned off for 1 s and turned back on, but the switch again fails to turn on within the specified time.	5056 ms (30 ppm)/ 3913 ms (40/50 ppm)
	15 Jam in paper feeder horizontal paper conveying section 1	Paper path sensor 3 (PPSENS3) does not turn on within specified time of paper feeder paper feed clutch 2 (PFPFCL2) turning on (paper feed from optional 3000-sheet paper feeder).	823 ms (30 ppm)/ 637 ms (40/50 ppm)
	16 Jam in paper feeder horizontal paper conveying section 2	Paper path sensor 2 (PPSENS2) does not turn on within specified time of the paper path sensor 3 (PPSENS3) turning on (paper feed from optional 3000-sheet paper feeder).	879 ms (30 ppm)/ 681 ms (40/50 ppm)
	17 Jam in paper feeder horizontal paper conveying section 3	Paper path sensor 1 (PPSENS1) does not turn on within specified time of the paper path sensor 2 (PPSENS2) turning on (paper feed from optional 3000-sheet paper feeder).	539 ms (30 ppm)/ 417 ms (40/50 ppm)

Section	Description	Conditions	Specified time
Paper feed section	18 Misfeed in vertical paper conveying section	The registration switch (RSW) does not turn on within specified time of feed switch 1 (FSW1) turning on.	1657 ms (30 ppm)/ 1283 ms (40/50 ppm)
		Feed switch 1 (FSW1) does not turn on within specified time of feed switch 2 (FSW2) turning on.	1910 ms (30 ppm)/ 1478 ms (40/50 ppm)
		Feed switch 2 (FSW2) does not turn on within specified time of feed switch 3 (FSW3) turning on.	1904 ms (30 ppm)/ 1474 ms (40/50 ppm)
	19 Misfeed in paper feeder vertical paper conveying section	Feed switch 3 (FSW3) does not turn on within specified time of the paper feeder feed switch (PFFSW) turning on.	1573 ms (30 ppm)/ 1217 ms (40/50 ppm)
	20 Misfeed in MP tray vertical paper conveying section	The registration switch (RSW) does not turn on within specified time of the MP feed switch (MPFSW) turning on.	3933 ms (30 ppm)/ 3043 ms (40/50 ppm)
	21 Multiple sheets in paper feed section	The feed switch 1 (FSW1) does not turn off within specified time of its turning on.	Paper length + 4337ms (30 ppm)/ Paper length + 3357ms (40/50 ppm)
		The feed switch 2 (FSW2) does not turn off within specified time of its turning on.	Paper length + 4337ms (30 ppm)/ Paper length + 3357ms (40/50 ppm)
		The feed switch 3 (FSW3) does not turn off within specified time of its turning on (paper feed from optional paper feeder).	3382ms (30 ppm)/ 2617ms (40/50 ppm)
		The feed switch 3 (FSW3) does not turn off within specified time of its turning on (paper feed from optional 3000-sheet paper feeder).	Paper length + 1595ms (30 ppm)/ Paper length + 1234ms (40/50 ppm)
		The paper feeder feed switch (PFFSW) does not turn off within specified time of its turning on.	3382ms (30 ppm)/ 2617ms (40/50 ppm)
		The MP feed switch (MPFSW) does not turn off within specified time of its turning on.	Paper length + 4337ms (30 ppm)/ Paper length + 3357ms (40/50 ppm)
		The feed switch 1 (FSW1) does not turn off within specified time of the upper paper feed clutch (PFCL-U) turning on.	1489 ms (30 ppm)/ 1152 ms (40/50 ppm)
		The feed switch 2 (FSW2) does not turn off within specified time of the lower paper feed clutch (PFCL-L) turning on.	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
		The feed switch 3 (FSW3) does not turn off within specified time of the paper feeder paper feed clutch 1 (PFPFCL1) turning on.	3416 ms (30 ppm)/ 2643 ms (40/50 ppm)
		The paper feeder feed switch (PFFSW) does not turn off within specified time of the paper feeder paper feed clutch 2 (PFPFCL2) turning on.	5056 ms (30 ppm)/ 3913 ms (40/50 ppm)
		The MP feed switch (MPFSW) does not turn off within specified time of the MP paper feed clutch (MPPFCL) turning on.	5056 ms (30 ppm)/ 3913 ms (40/50 ppm)

Section	Description	Conditions	Specified time
Paper feed section	22 Multiple sheets in vertical conveying section	The feed switch 1 (FSW1) does not turn off within specified time of the feed switch 2 (FSW2) turning off.	1910 ms (30 ppm)/ 1478 ms (40/50 ppm)
		The feed switch 2 (FSW2) does not turn off within specified time of the feed switch 3 (FSW3) turning off.	1989 ms (30 ppm)/ 1539 ms (40/50 ppm)
		The feed switch 1 (FSW1) does not turn off within specified time of the feed switch 2 (FSW2) turning on.	1910 ms (30 ppm)/ 1478 ms (40/50 ppm)
		The feed switch 2 (FSW2) does not turn off within specified time of the feed switch 3 (FSW3) turning on.	1904 ms (30 ppm)/ 1474 ms (40/50 ppm)
	23 Multiple sheets in MP tray conveying section	The registration switch (RSW) does not turn off within specified time of the MP feed switch (MPFSW) turning off.	3539 ms (30 ppm)/ 2739 ms (40/50 ppm)
		The registration switch (RSW) does not turn off within specified time of the MP feed switch (MPFSW) turning on.	3933 ms (30 ppm)/ 3043 ms (40/50 ppm)
Paper conveying section	30 Misfeed in registration/transfer section	The registration switch (RSW) does not turn off within specified time of the feed switch 1 (FSW1) turning off.	1511 ms (30 ppm)/ 1170 ms (40/50 ppm)
		The registration switch (RSW) does not turn off within specified time of the feed switch 1 (FSW1) turning on.	1652 ms (30 ppm)/ 1278 ms (40/50 ppm)
Fuser section	40 Misfeed in fuser section (MP tray)	The eject switch (ESW) does not turn on within specified time of the registration clutch (RCL) turning on.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
	41 Misfeed in fuser section (cassette 1)	The feedshift switch (FSSW) does not turn on within specified time of the registration clutch (RCL) turning on.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
	42 Misfeed in fuser section (cassette 2)		
	43 Misfeed in fuser section (optional cassette 3)		
	44 Misfeed in fuser section (optional cassette 4)		
	45 Misfeed in fuser section (optional 3000-sheet paper feeder)		
Eject section	50 Misfeed in eject section	The eject switch (ESW) does not turn off within specified time of the registration switch (RSW) turning off.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
	51 Misfeed in job separator eject section	The eject switch (ESW) does not turn off within specified time of the registration clutch (RCL) turning on.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
		The job separator eject switch (JBESW) does not turn on within specified time of the feedshift switch (FSSW) turning on.	2051 ms (30 ppm)/ 1587 ms (40/50 ppm)
		The job separator eject switch (JBESW) does not turn off within specified time of the feedshift switch (FSSW) turning off.	2051 ms (30 ppm)/ 1587 ms (40/50 ppm)
		The job separator eject switch (JBESW) does not turn off within specified time of the feedshift switch (FSSW) turning on.	2051 ms (30 ppm)/ 1587 ms (40/50 ppm)

Section	Description	Conditions	Specified time
Feedshift section	52 Misfeed in feedshift section	The feedshift switch (FSSW) does not turn on within specified time of the start of eject motor (EM) reverse rotation.	1545 ms (30 ppm)/ 1196 ms (40/50 ppm)
		During paper switchback operation, the feedshift switch (FSSW) does not turn off within specified time of the its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
		The feedshift switch (FSSW) does not turn off within specified time of the registration switch (RSW) turning off.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
		The feedshift switch (FSSW) does not turn off within specified time of the registration clutch (RCL) turning on.	2899 ms (30 ppm)/ 2243 ms (40/50 ppm)
Duplex section	60 Duplex paper conveying section 1	The duplex paper conveying switch (DUPPCSW) does not turn on within specified time of the feedshift switch (FSSW) turning on.	2837 ms (30 ppm)/ 2196 ms (40/50 ppm)
		The duplex paper conveying switch (DUPPCSW) does not turn off within specified time of the feedshift switch (FSSW) turning off.	2837 ms (30 ppm)/ 2196 ms (40/50 ppm)
	61 Duplex paper conveying section 2	The feed switch 1 (FSW1) does not turn on within specified time of the duplex paper conveying switch (DUPPCSW) turning on.	1994 ms (30 ppm)/ 1543 ms (40/50 ppm)
		The feed switch 1 (FSW1) does not turn off within specified time of the duplex paper conveying switch (DUPPCSW) turning off.	1994 ms (30 ppm)/ 1543 ms (40/50 ppm)
Optional DP	70 No original feed	The original feed switch (OFSW) does not turn on within specified time during the first sheet feeding.	2436 pulse
		The original feed switch (OFSW) does not turn on within specified time during the second sheet feeding.	4430 pulse
	71 An original jam in the original feed/conveying section 1	DP timing switch 2 (DPTSW2) does not turn off within specified time.	2500 pulse
	72 An original jam in the original feed/conveying section 2	The original feed switch (OFSW) and original registration switch (ORSW) does not turn off within specified time.	16675 pulse
	73 An original jam in the original conveying section	DP timing switch 1 (DPTSW1) does not turn off within specified time.	4979 pulse
	74 An original jam in the original registration section	The original registration switch (ORSW) does not turn on within specified time and after 5 retries.	4979 pulse

Section	Description	Conditions	Specified time
Optional DP	75 An original jam in the original registration section	The original registration switch (ORSW) does not turn off within specified time.	19533 pulse
		DP timing switch 1 (DPTSW1) does not turn on within specified time.	4979 pulse
	76 An original jam in the original feed/conveying section	DP timing switch 2 (DPTSW2) does not turn on within specified time.	2500 pulse
	78 Document processor top cover open	The document processor top cover is opened during original feeding.	-
Optional finisher	80 Jam between the finisher and machine (3000-sheet document finisher only)	Paper ejection is not output from the machine to the document finisher within specified time of the paper entry sensor (PES) turning on.	15 s
	81 Paper entry sensor nonarrival jam	(3000-sheet document finisher) The paper entry sensor (PES) is not turned off even if a specified time has elapsed after the machine eject signal was received.	1360 ms (30 ppm)/ 1052 ms (40/50 ppm)
		(3000-sheet document finisher) The paper entry sensor (PES) is not turned on even if a specified time has elapsed after the machine eject signal was received.	1360 ms (30 ppm)/ 1052 ms (40/50 ppm)
		(3000-sheet document finisher) The paper entry sensor (PES) does not turn off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
		(Document finisher) The paper entry sensor (PES) is not turned on even if a specified time has elapsed after the machine eject signal was received.	2627 ms
		(Built-in finisher) The paper conveying switch (PCSW) is not turned on even if a specified time has elapsed after the machine eject signal was received.	1573 ms (30 ppm) 1217 ms (40/50 ppm)
		(Built-in finisher) The paper conveying switch (PCSW) does not turn off within specified time of its turning on when paper is conveyed to the intermediate tray from the paper conveying unit.	Paper length + 1123 ms (30 ppm) Paper length + 869 ms (40/50 ppm)
	82 Jam in stapler	(3000-sheet document finisher) The home position is not detected within the specified time when driving the staple motor.	600 ms
		(Document finisher) The staple home position sensor (STSPS) is not turned on within the specified time when driving the staple motor (STM).	1000 ms
		(Built-in finisher) The staple home position sensor (STHPS) is not turned on within the specified time when driving the staple motor (STM).	600 ms

Section	Description	Conditions	Specified time
Optional finisher	83 Exit sensor stay jam	(3000-sheet document finisher) Eject switch 1 (ESW1) is not turned off within specified time of its turning on.	1182 ms
		(Document finisher) In the straight mode, the exit sensor (EXS) is not turned off within specified time of its turning on.	1680ms
		(Document finisher) In the offset or staple mode, the exit sensor (EXS) is not turned off within specified time of its turning on.	5375ms
		(Built-in finisher) The paper conveying switch (PCSW) does not turn off within specified time of its turning on when paper is ejected to the finisher tray from the intermediate tray.	Paper length + 1123 ms (30 ppm) Paper length + 869 ms (40/50 ppm)
	84 Jam in eject section of right sub tray (3000-sheet document finisher only)	Eject switch 2 (ESW2) is not turned off even if a specified time has elapsed after the machine eject signal was received.	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
		Eject switch 2 (ESW2) is not turned on even if a specified time has elapsed after the machine eject signal was received.	1562 ms (30 ppm)/ 1209 ms (40/50 ppm)
		Eject switch 2 (ESW2) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
	85 Jam in eject section of left sub tray (3000-sheet document finisher only)	Eject switch 3 (ESW3) does not turn off within specified time of paper entry sensor (PES) turning on.	1843 ms (30 ppm)/ 1426 ms (40/50 ppm)
		Eject switch 3 (ESW3) does not turn on within specified time of paper entry sensor (PES) turning on.	1843 ms (30 ppm)/ 1426 ms (40/50 ppm)
		Eject switch 3 (ESW3) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
	86 Jam in eject section of internal tray 1 (3000-sheet document finisher only)	Internal tray entry sensor 1 (ITPES1) is not turned on even if a specified time has elapsed after the eject signal was received.	2674 ms (30 ppm)/ 2070 ms (40/50 ppm)
	87 Jam in eject section of internal tray 2 (3000-sheet document finisher only)	Internal tray entry sensor 2 (ITPES2) does not turn on within specified time of internal tray entry sensor 1 (ITPES1) turning on.	1708 ms (30 ppm)/ 1322 ms (40/50 ppm)
		Internal tray entry sensor 2 (ITPES2) does not turn off within specified time of internal tray entry sensor 1 (ITPES1) turning off.	676 ms
	88 Jam in eject section of main tray (3000-sheet document finisher only)	Eject switch 1 (ESW1) is not turned on within specified time.	1324 ms
		Side registration home position sensor 1 (SRHPS1) is not turned off within specified time of its turning on.	500 ms
		Side registration home position sensor 2 (SRHPS2) is not turned off within specified time of its turning on.	500 ms
		The paper conveying belt detection sensor (PCBDS) is not turned off within specified time.	2000 ms

Section	Description	Conditions	Specified time
Optional finisher	89 Jam in centerfold unit (3000-sheet document finisher only)	The centerfold paper entry sensor (CPES) does not turn off within specified time of centerfold paper detection sensor (CPDS) turning on.	1770 ms (30 ppm)/ 1370 ms (40/50 ppm)
		The centerfold paper entry sensor (CPES) does not turn on within specified time of centerfold paper detection sensor (CPDS) turning on.	1770 ms (30 ppm)/ 1370 ms (40/50 ppm)
		The centerfold paper entry sensor (CPES) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
		The centerfold eject switch (CESW) is not turned on within specified time.	3040 ms
		The centerfold eject switch (CESW) is not turned off within specified time of its turning on.	4213 ms
		Centerfold side registration sensor 1 (CSRS1) is not turned on within specified time.	600 ms
		Centerfold side registration sensor 2 (CSRS2) is not turned on within specified time.	600 ms
	89 Jam in centerfold unit (3000-sheet document finisher only)	The home position is not detected within the specified time after driving the centerfold staple motor (CSTM).	1000 ms
		The centerfold paper detection sensor (CPDS) is not turned off within specified time.	4528 ms (30 ppm)/ 3504 ms (40/50 ppm)
		The centerfold paper detection sensor (CPDS) is not turned on within specified time.	4528 ms (30 ppm)/ 3504 ms (40/50 ppm)
		The centerfold paper detection sensor (CPDS) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
	90 Jam in mail box (3000-sheet document finisher only)	The mail paper entry switch (MPESW) is not turned on within specified time.	1315 ms (30 ppm)/ 1017 ms (40/50 ppm)
		The mail paper entry switch (MPESW) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
		The tray eject sensor (TEJS) does not turn on within specified time of mail paper entry switch (MPESW) turning on.	Tray 1 to 4 2618 ms (30 ppm)/ 2026 ms (40/50 ppm) Tray 5 to 7 1483 ms (30 ppm)/ 1148 ms (40/50 ppm)
		The tray eject sensor (TEJS) is not turned off within specified time of its turning on.	2989 ms (30 ppm)/ 2313 ms (40/50 ppm)
	91 Finisher cover open	(3000-sheet document finisher) The front cover, top cover or right sub tray is opened when starting the finisher operation. The centerfold unit top cover is opened when starting the centerfold operation. The mail box cover is opened when starting the operation.	-
		(Document finisher) The finisher cover becomes open during paper is running. Paper is remaining in paths at power on.	-
	92 Exit sensor non-arrival jam (document finisher only)	In the straight mode, the exit sensor (EXS) is not turned on even if a specified time has elapsed after the paper entry sensor (PES) was turned on.	1770 ms

Section	Description	Conditions	Specified time
Optional finisher	93 Reverse sensor jam (document finisher only)	The reverse sensor (REVS) does not turn on within specified time of paper entry sensor (PES) turning on.	1071 ms
		The reverse sensor (REVS) is not turned on within specified time.	435 ms
		The reverse sensor (REVS) does not turn off within specified time of paper entry sensor (PES) turning off.	622 ms
		The reverse sensor (REVS) is not turned off within specified time its turning on.	Depends on paper size
	94 Paper entry sensor stay/remaining jam (document finisher only)	The paper entry sensor (PES) is not turned off within specified time its turning on.	Depends on paper size
	95 Paper conveying sensor jam (document finisher only)	The paper conveying sensor (PCS) does not turn on within specified time of reverse sensor (REVS) turning on.	735 ms
		The paper conveying sensor (PCS) does not turn off within specified time of reverse sensor (REVS) turning off.	1004 ms
	96 Jam between the built-in finisher and machine (built-in finisher only)	Paper ejection is not output from the machine to the document finisher within specified time of the intermediate tray sensor (ITS) turning on.	1573 ms (30 ppm) 1217 ms (40/50 ppm)

**(3) Paper misfeeds**

Problem	Causes/check procedures	Corrective measures
(1) A paper jam in the paper feed, conveying or eject section is indicated as soon as the main power switch is turned on.	A piece of paper torn from copy paper is caught around feed switch 1/2/3, registration switch, eject switch or feedshift switch.	Check visually and remove it, if any.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feed switch 1/2/3, registration switch, eject switch, feedshift switch
(2) A paper jam in the paper feed section is indicated during copying (no paper feed from cassette 1). Jam code 10	Paper is extremely curled.	Change the paper.
	Check if the paper feed pulley, separation pulley or forwarding pulley of the cassette 1 are deformed.	Check visually and replace any deformed pulleys.
	Broken feed switch 1 actuator.	Check visually and replace switch.
	Defective feed switch 1.	Run maintenance item U031 and turn feed switch 1 on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if the upper paper feed clutch malfunctions.	Run maintenance item U032 and select the upper paper feed clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the upper paper feed clutch.	Check (see page 1-4-51).
(3) A paper jam in the paper feed section is indicated during copying (no paper feed from cassette 2). Jam code 11	Paper is extremely curled.	Change the paper.
	Check if the paper feed pulley, separation pulley or forwarding pulley of the cassette 2 are deformed.	Check visually and replace any deformed pulleys.
	Broken feed switch 2 actuator.	Check visually and replace switch.
	Defective feed switch 2.	Run maintenance item U031 and turn feed switch 2 on and off manually. Replace feed switch 2 if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if the lower paper feed clutch malfunctions.	Run maintenance item U032 and select the lower paper feed clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the lower paper feed clutch.	Check (see page 1-4-51).

Problem	Causes/check procedures	Corrective measures
(4) A paper jam in the paper feed section is indicated during copying (no paper feed from optional cassette 3). Jam code 12	Optional paper feeder	
	Paper is extremely curled.	Change the paper.
	Check if the paper feed pulley, forwarding pulley and separation pulley of optional cassette 3 are deformed.	Check visually and replace any deformed pulleys.
	Broken feed switch 3 actuator.	Check visually and replace switch.
	Defective feed switch 3.	Run maintenance item U031 and turn feed switch 3 on and off manually. Replace feed switch 3 if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if paper feeder paper feed clutch 1 malfunctions.	Run maintenance item U247 and select paper feeder paper feed clutch 1 on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with paper feeder paper feed clutch 1.	Check (see service manual of paper feeder).
	Optional 3000-sheet paper feeder	
	Paper is extremely curled.	Change the paper.
	Broken feed switch 3 actuator.	Check visually and replace switch.
	Defective feed switch 3.	Run maintenance item U031 and turn feed switch 3 on and off manually. Replace feed switch 3 if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if the clutch malfunctions.	Run maintenance item U247 and select following clutch on the touch panel to be turned on and off. Check the status and remedy if necessary. Paper feeder paper feed clutch 1/2, paper feeder paper conveying clutch
	Electrical problem with clutch.	Check (see service manual of 3000-sheet paper feeder).
(5) A paper jam in the paper feed section is indicated during copying (no paper feed from optional cassette 4). Jam code 13	Paper is extremely curled.	Change the paper.
	Check if the paper feed pulley, forwarding pulley and separation pulley of optional cassette 4 are deformed.	Check visually and replace any deformed pulleys.
	Broken paper feeder feed switch actuator.	Check visually and replace switch.
	Defective paper feeder feed switch.	With 5 V DC present at CN2-8 on the paper feeder main PWB, check if CN2-7 on the paper feeder main PWB remains low when the paper feeder feed switch is turned on and off. If it does, replace the paper feeder feed switch.
	Check if paper feeder paper feed clutch 2 malfunctions.	Run maintenance item U247 and select paper feeder paper feed clutch 2 on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with paper feeder paper feed clutch 2.	Check (see service manual of paper feeder).

Problem	Causes/check procedures	Corrective measures
(6) A paper jam in the paper feed section is indicated during copying (no paper feed from MP tray). Jam code 14	Paper is extremely curled.	Change the paper.
	Check if the MP paper feed pulley, MP forwarding pulley and MP separation pulley are deformed.	Check visually and replace any deformed pulleys.
	Broken MP feed switch actuator.	Check visually and replace switch.
	Defective MP feed switch.	Run maintenance item U031 and turn MP feed switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if the MP paper feed clutch malfunctions.	Run maintenance item U032 and select MP paper feed clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the MP paper feed clutch.	Check (see page 1-4-51).
(7) A paper jam in the paper feed section is indicated during copying (jam in 3000-sheet paper feeder horizontal paper conveying section). Jam code 15	Paper is extremely curled.	Change the paper.
	Check if the paper side guides are deformed.	Check visually and replace.
	Defective paper path sensor 3.	With 5 V DC present at CN6-12 on the paper feeder main PWB, check if CN6-11 on the paper feeder main PWB remains low when paper path sensor 3 is turned on and off. If it does, replace paper path sensor 3.
	Check if paper feeder paper feed clutch 2 malfunctions.	Run maintenance item U247 and select paper feeder paper feed clutch 2 on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with paper feeder paper feed clutch 2.	Check (see service manual of 3000-sheet paper feeder).
(8) A paper jam in the paper feed section is indicated during copying (jam in 3000-sheet paper feeder horizontal paper conveying section). Jam code 16	Paper is extremely curled.	Change the paper.
	Check if the paper side guides are deformed.	Check visually and replace.
	Defective paper path sensor 2.	With 5 V DC present at CN6-9 on the paper feeder main PWB, check if CN6-8 on the paper feeder main PWB remains low when paper path sensor 2 is turned on and off. If it does, replace paper path sensor 2.
	Check if paper feeder paper feed clutch 1 malfunctions.	Run maintenance item U247 and select paper feeder paper feed clutch 1 on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with paper feeder paper feed clutch 1.	Check (see service manual of 3000-sheet paper feeder).

Problem	Causes/check procedures	Corrective measures
(9) A paper jam in the paper feed section is indicated during copying (jam in 3000-sheet paper feeder horizontal paper conveying section). Jam code 17	Paper is extremely curled.	Change the paper.
	Check if the paper side guides are deformed.	Check visually and replace.
	Defective paper path sensor 1.	With 5 V DC present at CN6-6 on the paper feeder main PWB, check if CN6-5 on the paper feeder main PWB remains low when paper path sensor 1 is turned on and off. If it does, replace paper path sensor 1.
	Check if paper feeder paper conveying clutch malfunctions.	Run maintenance item U247 and select paper feeder paper conveying clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with paper feeder paper conveying clutch.	Check (see service manual of 3000-sheet paper feeder).
(10) A paper jam in the paper feed section is indicated during copying (jam in vertical paper conveying section). Jam code 18	Broken feed switch 1/2/3 actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn following switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feed switch 1/2/3, registration switch
	Defective feed pulleys or feed rollers.	Check visually and replace.
(11) A paper jam in the paper feed section is indicated during copying (jam in optional paper feeder vertical paper conveying section). Jam code 19	Broken feed switch 3 actuator.	Check visually and replace switch.
	Defective feed switch 3.	Run maintenance item U031 and turn feed switch 3 on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Broken paper feeder feed switch actuator.	Check visually and replace switch.
	Defective paper feeder feed switch.	With 5 V DC present at CN2-8 on the paper feeder main PWB, check if CN2-7 on the paper feeder main PWB remains low when the paper feeder feed switch is turned on and off. If it does, replace the paper feeder feed switch.
(12) A paper jam in the paper feed section is indicated during copying (jam in MP tray vertical paper conveying section). Jam code 20	Broken MP feed switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn following switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. MP feed switch, registration switch

Problem	Causes/check procedures	Corrective measures
(13) A paper jam in the paper feed section is indicated during copying (multiple sheets in paper feed section). Jam code 21	Broken feed switch 1/2/3 or MP feed switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feed switch 1/2/3, MP feed switch
	Broken paper feeder feed switch actuator.	Check visually and replace switch.
	Defective paper feeder feed switch.	With 5 V DC present at CN2-8 on the paper feeder main PWB, check if CN2-7 on the paper feeder main PWB remains low when the paper feeder feed switch is turned on and off. If it does, replace the paper feeder feed switch.
	Check if the clutch malfunctions.	Run maintenance item U247 and select following clutch on the touch panel to be turned on and off. Check the status and remedy if necessary. Upper paper feed clutch, lower paper feed clutch, MP paper conveying clutch
	Electrical problem with clutch.	Check (see page 1-4-51).
	Defective feed pulleys or feed rollers.	Check visually and replace.
(14) A paper jam in the paper feed section is indicated during copying (multiple sheets in vertical conveying section). Jam code 22	Broken feed switch 1/2/3 actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feed switch 1/2/3
	Defective feed pulleys or feed rollers.	Check visually and replace.
(15) A paper jam in the paper feed section is indicated during copying (multiple sheets in bypass conveying section). Jam code 23	Broken MP feed switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. MP feed switch, registration switch
(16) A paper jam in the paper conveying section is indicated during copying (jam in registration/transfer section). Jam code 30	Broken feed switch 1 actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feed switch 1, registration switch
	The contact between the right and left registration rollers is not correct.	Check visually and replace.

Problem	Causes/check procedures	Corrective measures
(17) A paper jam in the fuser section is indicated during copying (jam in fuser section). Jam codes 40 to 44, 46 and 47	Broken eject switch or feedshift switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Eject switch, feedshift switch
	Check if the registration clutch malfunctions.	Run maintenance item U032 and select the registration clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the registration clutch.	Check (see page 1-4-51).
(18) A paper jam in the eject section is indicated during copying (jam in eject section). Jam code 50	Broken eject switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Registration switch, eject switch
	Check if the registration clutch malfunctions.	Run maintenance item U032 and select the registration clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the registration clutch.	Check (see page 1-4-51).
(19) A paper jam in the eject section is indicated during copying (jam in optional job separator eject section). Jam code 51	Broken feedshift switch or job separator eject switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feedshift switch, job separator eject switch
(20) A paper jam in the feedshift section is indicated during copying (jam in feedshift section). Jam code 52	Check if the feedshift solenoid malfunctions.	Run maintenance item U033 and select the feedshift solenoid on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the feedshift solenoid.	Check (see page 1-4-51).
	Broken feedshift switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feedshift switch, registration switch
	Check if the registration clutch malfunctions.	Run maintenance item U032 and select the registration clutch on the touch panel to be turned on and off. Check the status and remedy if necessary.
	Electrical problem with the registration clutch.	Check (see page 1-4-51).

Problem	Causes/check procedures	Corrective measures
(21) A paper jam in the switchback section is indicated during copying (jam in optional switchback unit). Jam code 53	Broken feedshift switch or switchback eject switch actuator.	Check visually and replace switch.
	Defective feedshift switch.	Run maintenance item U031 and turn the feedshift switch on and off manually. Replace the feedshift switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Defective switchback eject switch.	With 5 V DC present at CN5-2 on the switchback unit main PWB, check if CN5-4 on the switchback unit main PWB remains low when the switchback eject switch is turned on and off. If it does, replace the switchback eject switch.
(22) A paper jam in the duplex section is indicated during copying (jam in duplex paper conveying section 1). Jam code 60	Broken feedshift switch or duplex paper conveying switch actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Feedshift switch, duplex paper conveying switch
(23) A paper jam in the duplex section is indicated during copying (jam in duplex paper conveying section 2). Jam code 61	Broken duplex paper conveying switch or feed switch 1 actuator.	Check visually and replace switch.
	Defective switch.	Run maintenance item U031 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Duplex paper conveying switch, feed switch 1
(24) An original jams in optional DP is indicated during copying (no original feed). Jam code 70	Defective original feed switch.	Run maintenance item U244 and turn the original feed switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Check if the original feed motor malfunctions.	Run maintenance item U243 and select the original feed motor on the touch panel to be turned on and off. Check the status and remedy if necessary.
(25) An original jams in optional DP is indicated during copying (a jam in the original feed/conveying section). Jam code 71	Defective DP timing switch 2.	Run maintenance item U244 and turn the DP timing switch 2 on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(26) An original jams in optional DP is indicated during copying (a jam in the original feed/conveying section). Jam code 72	Defective switch.	Run maintenance item U244 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Original feed switch, original registration switch
(27) An original jams in optional DP is indicated during copying (a jam in the original conveying section). Jam code 73	Defective DP timing switch 1.	Run maintenance item U244 and turn the DP timing switch 1 on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.

Problem	Causes/check procedures	Corrective measures
(28) An original jams in optional DP is indicated during copying (a jam in the original registration section). Jam code 74	Defective original registration switch.	Run maintenance item U244 and turn the original registration switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(29) An original jams in optional DP is indicated during copying (a jam in the original registration section). Jam code 75	Defective switch.	Run maintenance item U244 and turn switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Original registration switch, DP timing switch 1
(30) An original jams in optional DP is indicated during copying (a jam in the original feed/conveying section). Jam code 76	Defective DP timing switch 2.	Run maintenance item U244 and turn the DP timing switch 2 on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(31) A paper jam in optional document finisher is indicated during copying (jam between finisher and machine). Jam code 80	Defective paper entry sensor.	Run maintenance item U241 and turn the paper entry sensor on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(32) A paper jam in optional document finisher is indicated during copying (paper jam during paper insertion to the finisher). Jam code 81	3000-sheet document finisher/document finisher	
	Extremely curled paper.	Change the paper.
	Defective paper entry sensor.	(3000-sheet document finisher) Run maintenance item U241 and turn the paper entry sensor on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
		(Document finisher) With 5 V DC present at CN14-1 and CN14-3 on the finisher main PWB, check if CN14-2 and CN14-4 on the finisher main PWB remains low or high when the paper entry sensor is turned on and off. If it does, replace the paper entry sensor.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
	Built-in finisher	
	Extremely curled paper.	Change the paper.
	Defective paper conveying switch.	With 5 V DC present at YC2-23 on the finisher control PWB, check if YC2-21 on the finisher control PWB remains low or high when the paper conveying switch is turned on and off. If it does, replace the paper conveying switch.
	Check if the feedshift roller or feedshift pulley is deformed.	Check and remedy.

Problem	Causes/check procedures	Corrective measures
(33) A paper jam in optional document finisher is indicated during copying (finisher stapler jam). Jam code 82	3000-sheet document finisher/document finisher	
	Defective staple home position sensor.	Run maintenance item U241 and turn the staple home position sensor on and off manually. Replace the sensor if indication of the corresponding sensor on the touch panel is not displayed in reverse.
	Built-in finisher	
	The stapler is blocked with a staple.	Remove the stapler cartridge, and check the cartridge and the stapling section of the stapler. Remove the staple if any.
	Defective stapler section.	With 5 V DC present at YC2-24 on the finisher control PWB, check if YC2-19 on the finisher control PWB remains low or high. If it does, replace the stapler section.
(34) A paper jam in optional document finisher is indicated during copying (eject sensor stay jam). Jam code 83	3000-sheet document finisher	
	Defective eject switch 1.	Run maintenance item U241 and turn eject switch 1 on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
	Document finisher	
	Defective eject sensor.	With 5 V DC present at CN5-4 on the finisher main PWB, check if CN5-6 on the finisher main PWB remains low or high when the eject sensor is turned on and off. If it does, replace the eject sensor.
	Check if the paper conveying motor malfunctions.	Check and remedy.
	Check if the eject roller and eject pulley contact each other.	Check and remedy.
	Check if the eject guide is deformed.	Check and remedy.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
	Built-in finisher	
	Defective paper conveying switch.	With 5 V DC present at YC2-23 on the finisher control PWB, check if YC2-21 on the finisher control PWB remains low when the paper conveying switch is turned on and off. If it does, replace the paper conveying switch.
	Check if the feedshift roller or feedshift pulley is deformed.	Check and remedy.
(35) A paper jam in optional document finisher is indicated during copying (sub tray eject jam). Jam code 84	Defective eject switch 2.	Run maintenance item U241 and turn eject switch 2 on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(36) A paper jam in optional document finisher is indicated during copying (sub tray eject jam). Jam code 85	Defective eject switch 3.	Run maintenance item U241 and turn eject switch 3 on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.

Problem	Causes/check procedures	Corrective measures
(37) A paper jam in optional document finisher is indicated during copying (internal tray paper entry sensor 1 jam). Jam code 86	Defective internal tray paper entry sensor 1.	Run maintenance item U241 and turn internal tray paper entry sensor 1 on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(38) A paper jam in optional document finisher is indicated during copying (internal tray paper entry sensor 2 jam). Jam code 87	Defective internal tray paper entry sensor 2.	Run maintenance item U241 and turn internal tray paper entry sensor 2 on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse.
(39) A paper jam in optional document finisher is indicated during copying (main tray eject jam). Jam code 88	Defective sensor/switch.	Run maintenance item U241 and turn the following switch on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Eject switch 1, side registration home position sensor 1/2, paper conveying belt position detection sensor
(40) A paper jam in optional document finisher is indicated during copying (centerfold unit jam). Jam code 89	Defective sensor/switch.	Run maintenance item U241 and turn the following switch on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Centerfold paper entry sensor, centerfold eject switch, centerfold paper detection switch
(41) A paper jam in optional document finisher is indicated during copying (mail box jam). Jam code 90	Defective sensor/switch.	Run maintenance item U241 and turn the following switch on and off manually. Replace the original switchback switch if indication of the corresponding switch on the touch panel is not displayed in reverse. Mail paper entry switch, tray eject sensor
(42) A paper jam in optional document finisher is indicated during copying (eject sensor non-arrival jam). Jam code 92	Defective eject sensor.	With 5 V DC present at CN5-4 on the finisher main PWB, check if CN5-6 on the finisher main PWB remains low or high when the eject sensor is turned on and off. If it does, replace the eject sensor.
	Check if the paper conveying motor malfunctions.	Check.
	Check if the eject roller and eject pulley contact each other.	Check and remedy.
	Check if the eject guide is deformed.	Check and remedy.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.

Problem	Causes/check procedures	Corrective measures
(43) A paper jam in optional document finisher is indicated during copying (reverse sensor jam). Jam code 93	Defective reverse sensor.	With 5 V DC present at CN14-5 on the finisher main PWB, check if CN14-7 on the finisher main PWB remains low or high when the reverse sensor is turned on and off. If it does, replace the reverse sensor.
	Check if the reverse motor malfunctions.	Check.
	Check if the reverse roller and reverse pulley contact each other.	Check and remedy.
	Check if the reverse guide is deformed.	Check and remedy.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
(44) A paper jam in optional document finisher is indicated during copying (paper entry sensor stay jam). Jam code 94	Extremely curled paper.	Change the paper.
	Defective paper entry sensor.	With 5 V DC present at CN14-1 and CN14-3 on the finisher main PWB, check if CN14-2 and CN14-4 on the main PCB remains low or high when the paper entry sensor is turned on and off. If it does, replace the paper entry sensor.
	Check if the paper entry guide is deformed.	Check and remedy.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
(45) A paper jam in optional document finisher is indicated during copying (paper conveying sensor jam). Jam code 95	Defective paper conveying sensor.	With 5 V DC present at CN4-4 on the finisher main PWB, check if CN4-6 on the finisher main PWB remains low or high when the paper conveying sensor is turned on and off. If it does, replace the paper conveying sensor.
	Check if the paper conveying motor malfunctions.	Check.
	Check if the paper conveying roller and paper conveying pulley contact each other.	Check and remedy.
	Check if the paper conveying guide is deformed.	Check and remedy.
	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
(46) A paper jam in optional built-in finisher is indicated during copying (jam between finisher and machine). Jam code 96	Defective intermediate tray sensor.	With 5 V DC present at YC3-1 on the finisher control PWB, check if YC3-2 on the finisher control PWB remains low or high when the intermediate tray sensor is turned on and off. If it does, replace the intermediate tray sensor.

## 1-4-2 Self-diagnosis

### (1) Self-diagnostic function

This unit is equipped with a self-diagnostic function. When a problem is detected, copying is disabled and the problem displayed as a code consisting of C followed by a number, indicating the nature of the problem.

A message is also displayed requesting the user to call for service.

After removing the problem, the self-diagnostic function can be reset by turning safety switches off and back on.

### List of system errors

When an unexpected error is detected for some reason, a system error will be indicated. After a system error is indicated, the error can be cleared by turning the main power switch off and then on. If the error is detected continuously, however, perform the operation shown in Table 1-4-1. If a system error occurs frequently, a fault may have occurred. Check the details of the C call to take proper measures.

System error	Contents	Operation
0800	Image processing problem	System error → Normal service call processing
1800	Paper feeder unit communication problem	System error → service call → partial operation
4200	BD steady-state problem	System error → Normal service call processing
8800	Document finisher communication problem	System error → service call → partial operation
9000	DP communication problem	System error → service call → partial operation

Table 1-4-1

### Partial operation control

If any of the following calls for service is detected, partial operation control will be activated. After taking measures against the cause of trouble, run maintenance item U906 to reset partial operation control.

Code	Contents
C0170	Copy counts problem
C0180	Machine number mismatch error

## (2) Self diagnostic codes

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C0030</b>	<b>Fax control PWB system problem (optional fax)</b> Processing with the fax software was disabled due to a hardware or software problem.	Defective fax control PWB.	Replace the fax control PWB and verify the operation.
<b>C0060</b>	<b>Main PWB type mismatch error</b>	Defective PWB.	Contact the Service Administrative Division.
<b>C0070</b>	<b>Fax control PWB incompatibility detection problem (optional fax)</b> Fax software is not compatible with main software.	FAX and the machine are not compatible.	Use the FAX control PWB that is designed for use with the machine.
<b>C0130</b>	<b>Backup memory (EEPROM) device problem (Main PWB)</b> Reading from or writing to EEPROM cannot be performed.	Defective main PWB.	Replace the main PWB and check for correct operation.
		Device damage of EEPROM.	Contact the Service Administrative Division.
<b>C0140</b>	<b>Backup memory (EEPROM) data problem (Main PWB)</b> Reading data from EEPROM is abnormal.	Data damage of EEPROM.	Contact the Service Administrative Division.
<b>C0150</b>	<b>Backup memory device problem (Engine PWB)</b> Reading from or writing to EEPROM cannot be performed.	Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Device damage of EEPROM.	Contact the Service Administrative Division.
<b>C0160</b>	<b>Backup memory data problem (Engine PWB)</b> Reading data from EEPROM is abnormal. Read and write data does not match five times continuously.	Problem with the backup memory data.	Run maintenance item U022 to initialize the backup memory data.
		Defective engine PWB.	If the C0160 is displayed after initializing the backup memory, replace the engine PWB and check for correct operation.
<b>C0170</b>	<b>Copy counts problem</b> A checksum error is detected in the main and engine backup memories for the copy counters.	Data damage of EEPROM.	Contact the Service Administrative Division.
		Defective PWB.	Replace the main PWB or engine PWB and check for correct operation.
<b>C0180</b>	<b>Machine number mismatch error</b> Machine number of main PWB and engine PWB does not match.	Data damage of EEPROM.	Contact the Service Administrative Division.
<b>C0600</b>	<b>DIMM installed incorrectly</b> DIMM is not installed correctly.	DIMM installed incorrectly.	Check if the DIMM is inserted into the socket on the main PWB correctly.
<b>C0610</b>	<b>DIMM problem</b> The DIMM on the main PWB does not operate correctly.	Defective main PWB.	Replace the main PWB and check for correct operation.
		Defective DIMM.	Replace the DIMM and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C0630</b>	<b>DMA problem</b> DMA transmission of compressed, decompressed, rotated, relocated or blanked-out image data does not complete within the specified period of time.	Defective main PWB.	Replace the main PWB and check for correct operation.
<b>C0640</b>	<b>Hard disk drive problem</b> The hard disk cannot be accessed.	Poor contact in the connector terminals.	Check the connection of connector YC49 on the main PWB and the connector on the hard disk. Repair or replace if necessary.
		Defective hard disk.	Run U024 (HDD formatting) without turning the power off to initialize the hard disk. Replace the hard disk drive and check for correct operation if the problem is still detected after initialization.
		Defective main PWB.	Replace the main PWB and check for correct operation.
<b>C0700</b>	<b>CF error for backup</b> Optional data backup kit (CF) is not suitable as backup.	CF installed incorrectly.	Install CF correctly.
		Defective CF.	Install normal CF.
<b>C0800</b>	<b>Image processing problem</b> JAM05 is detected twice.	Defective main PWB.	Replace the main PWB and check for correct operation.
<b>C0830</b>	<b>Flash ROM program area checksum error (optional fax)</b> A checksum error occurred with the program in the Flash ROM on the fax control PWB.	Defective fax control PWB.	Replace the fax control PWB and check for correct operation.
<b>C0870</b>	<b>Fax control PWB to main PWB high capacity data transfer problem (optional fax)</b> High-capacity data transfer between the fax control PWB and the main PWB was not normally performed even if the data transfer was retried the specified times.	Poor contact in the connector terminals.	Check the connection of connector YC1 on the fax control PWB and YC4 on the interface PWB, connection of connector YC30 on the main PWB and YC6 on the interface PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective fax control PWB or main PWB.	Replace the fax control PWB or main PWB and check for correct operation.
<b>C0880</b>	<b>Fax control PWB program archive problem (optional fax)</b> When power is turned on, the compressed program in the Flash ROM on the fax control PWB was not successfully decompressed.	Defective fax control PWB.	Replace the fax control PWB and check for correct operation.
<b>C0920</b>	<b>Fax file system error (optional fax)</b> The backup data is not retained for file system abnormality of flash memory of the fax control PWB.	Defective fax control PWB.	Replace the fax control PWB and verify the operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C1010</b>	<b>Upper lift motor error</b> When cassette 1 is inserted, upper lift limit switch does not turn on within 12 s of upper lift motor turning on.	Poor contact in the connector terminals.	Check the connection of connector of upper lift motor and the connector YC13 on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Broken gears or couplings of upper lift motor.	Replace upper lift motor.
		Defective upper lift motor.	Check for continuity across the coil. If none, replace upper lift motor.
		Defective upper lift limit switch.	Check if YC13-B9 on the engine PWB goes low when upper lift limit switch is turned off. If not, replace upper lift limit switch.
		Poor contact in the connector terminals.	Check the connection of connector of upper lift limit switch and the connector YC13 on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
<b>C1020</b>	<b>Lower lift motor error</b> When cassette 2 is inserted, lower lift limit switch does not turn on within 12 s of lower lift motor turning on.	Poor contact in the connector terminals.	Check the connection of connector of lower lift motor and the connector YC13 on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Broken gears or couplings of lower lift motor.	Replace lower lift motor.
		Defective lower lift motor.	Check for continuity across the coil. If none, replace lower lift motor.
		Defective lower lift limit switch.	Check if YC13-B15 on the engine PWB goes low when lower lift limit switch is turned off. If not, replace lower lift limit switch.
		Poor contact in the connector terminals.	Check the connection of connector of lower lift limit switch and the connector YC13 on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C1030</b>	<b>Paper feeder lift motor 1 error (optional paper feeder)</b> When optional cassette 3 is inserted, paper feeder lift switch 1 does not turn on within 12 s of paper feeder lift motor 1 turning on.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Broken gears or couplings of paper feeder lift motor 1.	Replace paper feeder lift motor 1.
		Defective paper feeder lift motor 1.	Check for continuity across the coil. If none, replace paper feeder lift motor 1.
		Defective paper feeder lift switch 1.	Check if YC1-5 on the paper feeder main PWB goes low when paper feeder lift switch 1 is turned off. If not, replace paper feeder lift switch 1.
<b>C1040</b>	<b>Paper feeder lift motor 2 error (optional paper feeder)</b> When optional cassette 4 is inserted, paper feeder lift switch 2 does not turn on within 12 s of paper feeder lift motor 2 turning on.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Broken gears or couplings of paper feeder lift motor 2.	Replace paper feeder lift motor 2.
		Defective paper feeder lift motor 2.	Check for continuity across the coil. If none, replace paper feeder lift motor 2.
		Defective paper feeder lift switch 2.	Check if YC1-7 on the paper feeder main PWB goes low when paper feeder lift switch 2 is turned off. If not, replace paper feeder lift switch 2.
<b>C1100</b>	<b>Paper feeder lift motor 1 error (optional 3000-sheet paper feeder)</b> A motor over-current signal is detected continuously for 1 s or longer.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Paper feeder lift motor 1 does not rotate correctly (the motor is over-loaded).	Check the gears and remedy if necessary.
<b>C1110</b>	<b>Paper feeder lift motor 2 error (optional 3000-sheet paper feeder)</b> A motor over-current signal is detected continuously for 1 s or longer.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Paper feeder lift motor 2 does not rotate correctly (the motor is over-loaded).	Check the gears and remedy if necessary.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C1120</b>	<b>Paper feeder left lift position problem (optional 3000-sheet paper feeder)</b> Paper feeder switch 2 does not turn on within 30 s of paper feeder lift motor 1 turning on.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective paper feeder lift switch 2.	Check if YC5-7 on the paper feeder main PWB goes low when paper feeder lift switch 2 is turned off. If not, replace paper feeder lift switch 2.
		Defective paper feeder lift motor 1.	Check for continuity across the coil. If none, replace paper feeder lift motor 1.
		The paper feeder left lift does not rise properly.	Check the gears and belts, and remedy if necessary.
<b>C1130</b>	<b>Paper feeder right lift position problem (optional 3000-sheet paper feeder)</b> Paper feeder switch 1 does not turn on within 30 s of paper feeder lift motor 2 turning on.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective paper feeder lift switch 1.	Check if YC5-4 on the paper feeder main PWB goes low when paper feeder lift switch 1 is turned off. If not, replace paper feeder lift switch 1.
		Defective paper feeder lift motor 2.	Check for continuity across the coil. If none, replace paper feeder lift motor 2.
		The paper feeder right lift does not rise properly.	Check the gears and belts, and remedy if necessary.
<b>C1800</b>	<b>Paper feeder unit communication problem (optional paper feeder/3000-sheet paper feeder)</b> No communication: there is no reply after 5 retries. Abnormal communication: a communication error (parity or checksum error) is detected five times in succession.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective paper feeder main PWB.	Replace the paper feeder main PWB and check for correct operation.
<b>C1900</b>	<b>Paper feeder EEPROM error (optional paper feeder)</b> When writing the data, the write data and the read data is not continuously in agreement three times.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective paper feeder.	Replace the paper feeder with another unit and check the operation. If the operation is normal, replace or repair optional paper feeder.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C2000</b>	<b>Drive motor problem</b> Stable OFF is detected for 1 s continuously after drive motor stability.	Poor contact in the connector terminals.	Check the connection of connector YC11 on the engine PWB and the connector on the drive motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective drive motor.	Replace the drive motor.
<b>C2250</b>	<b>Main charger cleaning motor error</b> A locking error has been detected three times in a row during a reciprocating cleaning motion.	Poor contact in the connector terminals.	Check the connection of connector YC9 on the engine PWB and the connector on the main charger cleaning motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective main charger cleaning motor.	Replace the main charger cleaning motor.
<b>C2500</b>	<b>Paper feed motor error</b> Stable OFF is detected for 1 s continuously after paper feed motor stability.	Poor contact in the connector terminals.	Check the connection of connector YC11 on the engine PWB and the connector on the paper feed motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective paper feed motor.	Replace the paper feed motor.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C2600</b>	<b>Paper feeder paper conveying motor error (optional 3000-sheet paper feeder)</b> The lock signal of the motor is detected above 450 ms. <b>Paper feeder drive motor error (optional paper feeder)</b> The lock signal of the motor is detected above 500 ms.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the connector on the paper feeder main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Paper feeder paper conveying motor / paper feeder drive motor does not rotate correctly (the motor is overloaded).	Check the gears and remedy if necessary.
		Defective PWB.	Replace the paper feeder main PWB or engine PWB and check for correct operation.
		Defective motor.	Replace the paper feeder paper conveying motor / paper feeder drive motor.
<b>C3100</b>	<b>Scanner carriage problem</b> The home position is not correct when the power is turned on or at the start of copying using the table.	Poor contact in the connector terminals.	Check the connection of connector YC4 on the scanner PWB and the connector on the scanner home position switch, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective scanner PWB.	Replace the scanner PWB and check for correct operation.
		Defective scanner home position switch.	Replace the scanner home position switch.
		Defective scanner motor.	Replace the scanner motor.
		The mirror frame, exposure lamp, or scanner wire is defective.	Check if the mirror frames and exposure lamp are on the rail. And check the scanner wire winds correctly.
<b>C3200</b>	<b>Exposure lamp problem</b> After the reading starting, when input value at the time of exposure lamp illumination does not exceed the threshold value between 5 s.	Poor contact in the connector terminals.	Check the connection of connector YC6 on the scanner PWB and the connector on the inverter PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective scanner PWB.	Replace the scanner PWB and check for correct operation.
		Defective CCD PWB.	Replace the CCD PWB and check for correct operation.
		Defective exposure lamp or inverter PWB.	Replace the exposure lamp or inverter PWB.
		Incorrect shading position.	Adjust the position of the contact glass (shading plate). If the problem still occurs, replace the scanner home position switch.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C3210</b>	<b>CIS lamp problem</b> After the reading starting, when input value at the time of CIS illumination does not exceed the threshold value between 5 s.	Poor contact in the connector terminals.	Check the connection of connector on the main PWB and the connector on the DP main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
		Defective DP inverter PWB.	Replace the DP inverter PWB and check for correct operation.
		Defective CIS.	Replace the CIS and check for correct operation.
<b>C3300</b>	<b>CCD AGC problem</b> After AGC, correct input is not obtained at CCD.	Poor contact in the connector terminals.	Check the connection of connector on the SHD PWB and the connector on the CCD PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective exposure lamp.	Replace the exposure lamp or inverter PWB.
		Defective PWB.	Replace the SHD PWB or CCD PWB and check for correct operation.
<b>C3310</b>	<b>CIS AGC problem</b> After AGC, correct input is not obtained at CIS.	Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
		CIS output problem.	Replace the CIS and check for correct operation.
		Defective DP inverter PWB.	Replace the DP inverter PWB and check for correct operation.
<b>C3500</b>	<b>Communication error between scanner and SHD</b> An error code is detected.	Poor contact in the connector terminals.	Check the connection of connector YC3 on the scanner PWB and the connector YC4 on the SHD PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective PWB.	Replace the scanner PWB or SHD PWB and check for correct operation.
<b>C3900</b>	<b>Backup memory read/write problem (scanner PWB)</b> Read and write data does not match.	Defective backup RAM or scanner PWB.	Replace the scanner PWB and check for correct operation.
<b>C3910</b>	<b>Backup memory data problem (scanner PWB)</b> Data in the specified area of the backup memory does not match the specified values.	Problem with the backup memory data.	Run maintenance item U022 to initialize the backup memory data.
		Defective scanner PWB.	If the C3910 is displayed after initializing the backup memory, replace the scanner PWB and check for correct operation.
<b>C4000</b>	<b>Polygon motor synchronization problem</b> The polygon motor does not reach the stable speed within 20 s of the START signal turning on.	Poor contact in the connector terminals.	Check the connection of connector YC8 on the engine PWB and laser scanner unit, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective polygon motor.	Replace the laser scanner unit.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C4010</b>	<b>Polygon motor steady-state problem</b> The polygon motor rotation is not stable for 20 s after the polygon motor rotation has been stabilized.	Poor contact in the connector terminals.	Check the connection of connector YC8 on the engine PWB and laser scanner unit, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective polygon motor.	Replace the laser scanner unit.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
<b>C4200</b>	<b>BD steady-state problem</b> ASIC detects a BD error A for 2 s after the polygon motor rotation has been stabilized.	Poor contact in the connector terminals.	Check the connection of connector YC8 on the engine PWB and laser scanner unit, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective laser scanner unit.	Replace the laser scanner unit.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
<b>C5300</b>	<b>Broken cleaning lamp wire</b> While the cleaning lamp is on, the broken cleaning lamp wire detection signal is detected for 2 s continuously.	Defective cleaning lamp.	Replace the cleaning lamp.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
<b>C6000</b>	<b>Fuser heater break</b> Fuser thermistor 1 is detected 40°C/ 104°F below with 10 s continuously during warm-up and ready in.	Defective fuser heater M or S.	Replace the fuser heater M or S.
		Installation defectiveness on fuser thermistor 1.	Check the mounting state of the fuser thermistor 1. If any problem is found, repair it.
		Defective fuser thermostat.	Replace the fuser thermostat.
		Defective PWB.	Replace the power source PWB or engine PWB and check for correct operation.
<b>C6020</b>	<b>Abnormally high fuser thermistor temperature</b> Fuser thermistor 1 or 2 is detected 230°C/446°F or more for 40 ms.	Installation defectiveness on fuser thermistor 1 or 2.	Check the mounting state of the fuser thermistor 1 or 2. If any problem is found, repair it.
		Defective fuser thermistor 1 or 2.	Replace the fuser thermistor 1 or 2.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
<b>C6030</b>	<b>Fuser thermistor break error</b> The thermistor break signal is detected continuously for 500 ms.	Installation defectiveness on fuser thermistor 1 or 2.	Check the mounting state of the fuser thermistor 1 or 2. If any problem is found, repair it.
		Defective fuser thermistor 1 or 2.	Replace the fuser thermistor 1 or 2.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C6050</b>	<b>Abnormally low fuser thermistor 3 temperature</b> Fuser thermistor 1 is detected 100°C/ 212°F less than 1 s continuously during copying.	Defective fuser heater M or S.	Replace the fuser heater M or S.
		Installation defectiveness on fuser thermistor 1.	Check the mounting state of the fuser thermistor 1. If any problem is found, repair it.
		Defective PWB.	Replace the power source PWB or engine PWB and check for correct operation.
<b>C6400</b>	<b>Zero-cross signal error</b> While fuser heater ON/OFF control is performed, the zero-cross signal is not input within 3 s.	Defective PWB.	Replace the engine PWB or power source PWB and check for correct operation.
<b>C6410</b>	<b>Fuser unit connector insertion problem</b> Absence of the fuser unit is detected.	Fuser unit connector inserted incorrectly.	Reinsert the fuser unit connector if necessary.
		Defective fuser unit connector.	Replace the fuser unit.
<b>C6420</b>	<b>Fuser unit fuse cut problem</b> The fuse in the fuser unit did not blow within three seconds.	Poor contact in the connector terminals.	Check the connection of connector YC10 on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Fuser unit connector inserted incorrectly.	Reinsert the fuser unit connector if necessary.
<b>C7300</b>	<b>Toner container problem</b> Toner level is not detected when toner empty is detected.	Poor contact in the connector terminals.	Check the connection of connector YC9 on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective toner container sensor.	Replace the toner container sensor.
<b>C7400</b>	<b>Developing unit connector insertion problem</b> Absence of the developing unit is detected.	Developing unit connector inserted incorrectly.	Reinsert the developing unit connector if necessary.
		Defective developing unit connector.	Replace the developing unit.
<b>C7410</b>	<b>Drum unit connector insertion problem</b> Absence of the drum unit is detected.	Drum unit connector inserted incorrectly.	Reinsert the drum unit connector if necessary.
		Defective drum unit connector.	Replace the drum unit.
<b>C7800</b>	<b>Broken external thermistor wire</b> The thermistor output value is 4.5 V or more.	Poor contact in the connector terminals.	Check the connection of connector YC14 on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective humidity sensor.	Replace the humidity sensor.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C7810</b>	<b>Short-circuited external thermistor</b> The thermistor input value is 0.5 V or less.	Poor contact in the connector terminals.	Check the connection of connector YC14 on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective humidity sensor.	Replace the humidity sensor.
<b>C7900</b>	<b>Drum EEPROM error</b> Reading from or writing to EEPROM cannot be performed.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective drum unit.	Replace the drum unit.
<b>C7910</b>	<b>Developing unit EEPROM error</b> Reading from or writing to EEPROM cannot be performed.	Poor contact in the connector terminals.	Check the connection of connector on the engine PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective developing unit.	Replace the developing unit.
<b>C8020</b>	<b>Punch motor problem (optional 3000-sheet document finisher)</b> The LOCK signal of the punch motor is detected for more than 500 ms while the punch motor is operating.	Poor contact in the connector terminals.	Check the connection of connector on the punch PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective punch motor.	Replace the punch motor.
		Defective PWB.	Replace the punch PWB or finisher main PWB and check for correct operation.
<b>C8030</b>	<b>Tray upper limit detection problem (optional document finisher)</b> When the tray elevation motor raises a tray, the ON status of the tray upper limit sensor is detected.	The tray upper limit sensor/push paper sensor/surface view sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective tray upper limit sensor/push paper sensor/surface view sensor.	Replace the sensor.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C8050</b>	<b>Paper conveying belt motor 1 problem (optional 3000-sheet document finisher)</b> Paper conveying belt home position sensor 1 does not turn off within 1.5 s. Paper conveying belt home position sensor 1 does not turn on within 2.5 s. Jam 88 is indicated.	Poor contact in the connector terminals.	Check the connection of connector YC2 on the internal tray PWB and the connector on paper conveying belt motor 1, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective paper conveying belt home position sensor 1.	Replace paper conveying belt home position sensor 1.
		Defective paper conveying belt motor 1.	Replace paper conveying belt motor 1.
		Defective PWB.	Replace the internal tray PWB or finisher main PWB and check for correct operation.
<b>C8060</b>	<b>Paper conveying belt motor 2 problem (optional 3000-sheet document finisher)</b> Paper conveying belt home position sensor 2 does not turn off within 1.5 s. Paper conveying belt home position sensor 2 does not turn on within 2.5 s.	Poor contact in the connector terminals.	Check the connection of connector YC6 on the internal tray PWB and the connector on paper conveying belt motor 2, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective paper conveying belt home position sensor 2.	Replace paper conveying belt home position sensor 2.
		Defective paper conveying belt motor 2.	Replace paper conveying belt motor 2.
		Defective PWB.	Replace the internal tray PWB or finisher main PWB and check for correct operation.
<b>C8070</b>	<b>Internal tray communication error (optional 3000-sheet document finisher)</b> Communication with the internal tray is not possible although the connection is detected.	Poor contact in the connector terminals.	Check the connection of connector YC6 on the finisher main PWB and the connector YC1 on the internal tray PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective PWB.	Replace the internal tray PWB or finisher main PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C8140	<b>Main tray problem (optional 3000-sheet document finisher)</b> The main tray is not detected by the main tray top limit detection sensor or the main tray capacity detection sensor within 20s since the tray has started ascending. The main tray upper limit detection sensor or the main tray load detection sensor is not detected to be turned off in 20 seconds after the main tray has descended. The main tray low limit detection sensor is not detected to be turned on in 20 seconds after the main tray has descended. During main tray ascent, the main tray upper limit detection sensor or the main tray load detection sensor stays on for more than 2 s.	Poor contact in the connector terminals.	Check the connection of connector YC6 on the finisher main PWB and the connector on the main tray motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective main tray motor.	Replace the main tray motor.
		Defective main tray upper limit detection sensor/main tray load detection sensor/main tray lower limit detection sensor.	Replace the sensor.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
	<b>Tray elevation motor problem (optional document finisher)</b> When the tray elevation motor is driving, the ON status of the tray lower limit sensor or surface view sensor cannot be detected even if a specified time has elapsed.	The tray elevation motor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		The tray elevation motor malfunctions.	Replace the tray elevation motor.
		The tray lower limit sensor/push paper sensor/surface view sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective tray lower limit sensor/push paper sensor/surface view sensor.	Replace the sensor.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C8170	<b>Side registration motor 1 problem (optional 3000-sheet document finisher)</b> When operation returned to a home position is performed at the time of initial operation and a home position is not detected even if 3 s passed. Jam 88 is indicated.	Poor contact in the connector terminals.	Check the connection of connector YC2 on the internal tray PWB and the connector on side registration motor 1, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective side registration motor 1.	Replace side registration motor 1.
		Defective PWB.	Replace the internal tray PWB or finisher main PWB and check for correct operation.
	<b>Adjustment motor problem (optional document finisher)</b> When the adjustment motor is driving, the ON status of the adjustment home position sensor cannot be detected even if a specified time has elapsed. When adjustment operation starts, the ON status of the adjustment home position sensor is not detected.	The adjustment motor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective adjustment motor.	Replace adjustment motor.
		The adjustment home position sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective adjustment home position sensor.	Replace the adjustment home position sensor.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
	<b>Finisher front side registration motor problem (optional built-in finisher)</b> When the front-side registration home-position sensor is turned on during initialization, the sensor did not turn on while it has moved by 106 pulses. When the front-side registration home-position sensor is turned off during initialization, the sensor did not turn on in three seconds.	The front side registration motor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective front side registration motor.	Replace front side registration motor.
		The front side registration home position sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective front side registration home position sensor.	Replace the front side registration home position sensor.
		Defective finisher control PWB.	Replace the finisher control PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C8180	<b>Side registration motor 2 problem (optional 3000-sheet document finisher)</b> When operation returned to a home position is performed at the time of initial operation and a home position is not detected even if 3 s passed. Jam 88 is indicated.	Poor contact in the connector terminals.	Check the connection of connector YC8 on the internal tray PWB and the connector of side registration motor 2, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective side registration motor 2.	Replace side registration motor 2.
		Defective PWB.	Replace the internal tray PWB or finisher main PWB and check for correct operation.
	<b>Finisher rear side registration motor problem (optional built-in finisher)</b> When the rear-side registration home-position sensor is turned on during initialization, the sensor did not turn on while it has moved by 106 pulses. When the rear-side registration home-position sensor is turned off during initialization, the sensor did not turn on in three seconds.	The rear side registration motor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective rear side registration motor.	Replace rear side registration motor.
		The rear side registration home position sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective rear side registration home position sensor.	Replace the rear side registration home position sensor.
		Defective finisher control PWB.	Replace the finisher control PWB and check for correct operation.
C8190	<b>Finisher trailing edge registration motor problem (optional built-in finisher)</b> When the trailing edge registration home-position sensor is turned on during initialization, the sensor did not turn on while it has moved by 106 pulses. When the trailing edge registration home-position sensor is turned off during initialization, the sensor did not turn on in three seconds.	The trailing edge registration motor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective trailing edge registration motor.	Replace trailing edge registration motor.
		The trailing edge registration home position sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective trailing edge registration home position sensor.	Replace the trailing edge registration home position sensor.
		Defective finisher control PWB.	Replace the finisher control PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C8210</b>	<b>Stapler moving motor 1 error (optional 3000-sheet document finisher)</b> When operation returned to a home position is performed at the time of initial operation and a home position is not detected even if 1.5 s passed.	Poor contact in the connector terminals.	Check the connection of connector YC9 on the finisher main PWB and the connector of stapler moving motor 1, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective stapler moving motor 1.	Replace stapler moving motor 1.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
	<b>Stapler problem (optional document finisher)</b> When the stapler motor is driving, the ON status of the stapler home position sensor cannot be detected even if a specified time has elapsed.	The stapler connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		The stapler is blocked with a staple.	Remove the stapler cartridge, and check the cartridge and the stapling section of the stapler.
		The stapler is broken.	Replace the stapler and check for correct operation.
	<b>Finisher stapler problem (optional built-in finisher)</b> The stapler home position sensor does not change state from nondetection to detection within 200 ms of the start of stapler motor counterclockwise (forward) rotation. During initialization, the stapler home position sensor does not change state from non-detection to detection within 600 ms of the start of stapler motor clockwise (reverse) rotation.	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
		The stapler connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		The stapler is blocked with a staple.	Remove the stapler cartridge, and check the cartridge and the stapling section of the stapler.
		The stapler is broken.	Replace the front stapler and check for correct operation.
<b>C8220</b>	<b>Stapler moving motor 2 error (optional 3000-sheet document finisher)</b> When operation returned to a home position is performed at the time of initial operation and a home position is not detected even if 3.5 s passed.	Defective finisher control PWB.	Replace the finisher control PWB and check for correct operation.
		Poor contact in the connector terminals.	Check the connection of connector YC10 on the finisher main PWB and the connector of stapler moving motor 2, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective stapler moving motor 2.	Replace stapler moving motor 2.
<b>C8230</b>	<b>Stapler motor problem (optional 3000-sheet document finisher)</b> Jam 82 is indicated.	Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
		Defective stapler motor.	Replace the stapler motor.
		Poor contact in the connector terminals.	Check the connection of connector YC10 on the finisher main PWB and the connector of stapler motor, and the continuity across the connector terminals. Repair or replace if necessary.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C8300</b>	<b>Centerfold unit communication error (optional centerfold unit of 3000-sheet document finisher)</b> Communication with the centerfold unit is not possible although the connection is detected.	Poor contact in the connector terminals.	Check the connection of connector YC22 on the finisher main PWB and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold unit set switch.	Replace the centerfold unit set switch.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
<b>C8310</b>	<b>Centerfold side registration motor 1 problem (optional centerfold unit of 3000-sheet document finisher)</b> The home position is not detected when initial operation even if 1000 ms passed.	Poor contact in the connector terminals.	Check the connection of connector YC6 on the centerfold main PWB and the connector of centerfold side registration motor 1, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold side registration motor 1.	Replace centerfold side registration motor 1.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.
<b>C8320</b>	<b>Centerfold paper conveying belt motor problem (optional centerfold unit of 3000-sheet document finisher)</b> The home position is not detected when initial operation even if 2500 ms passed.	Poor contact in the connector terminals.	Check the connection of connector YC6/ YC7 on the centerfold main PWB and the connector of centerfold paper conveying belt motor 1/2, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold paper conveying belt motor 1/2.	Replace centerfold paper conveying belt motor 1/2.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.
<b>C8330</b>	<b>Blade motor problem (optional centerfold unit of 3000-sheet document finisher)</b> The home position is not detected when initial operation even if 1500 ms passed.	Poor contact in the connector terminals.	Check the connection of connector YC8 on the centerfold main PWB and the connector of the blade motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective blade motor.	Replace the blade motor.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.
<b>C8340</b>	<b>Centerfold staple motor problem (optional centerfold unit of 3000-sheet document finisher)</b> Jam89 is indicated.	Poor contact in the connector terminals.	Check the connection of connector YC9 on the centerfold main PWB and the connector of the centerfold staple motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold staple motor.	Replace the centerfold staple motor.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C8350</b>	<b>Centerfold side registration motor 2 problem (optional centerfold unit of 3000-sheet document finisher)</b> The home position is not detected when initial operation even if 1000 ms passed.	Poor contact in the connector terminals.	Check the connection of connector YC7 on the centerfold main PWB and the connector of centerfold side registration motor 2, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold side registration motor 2.	Replace centerfold side registration motor 1.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.
<b>C8360</b>	<b>Centerfold main motor problem (optional centerfold unit of 3000-sheet document finisher)</b> The motor lock signal is detected above 1000 ms during driving the centerfold main motor.	Poor contact in the connector terminals.	Check the connection of connector YC12 on the centerfold main PWB and the connector of the centerfold main motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold main motor.	Replace the centerfold main motor.
		Defective PWB.	Replace the centerfold main PWB or finisher main PWB and check for correct operation.
<b>C8440</b>	<b>Sensor adjusting problem (optional document finisher)</b> The sensor cannot be adjusted within the specified range.	The paper entry sensor connector makes poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective paper entry sensor.	Replace the paper entry sensor and check for correct operation.
		The optical path of the paper entry sensor is blocked by foreign matter.	Remove the foreign matter.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
<b>C8460</b>	<b>EEPROM problem (optional document finisher)</b> Reading from or writing to EEPROM cannot be performed.	Defective EEPROM or finisher main PWB.	Replace the finisher main PWB and check for correct operation.
<b>C8500</b>	<b>Mail box communication error (optional mail box of 3000-sheet document finisher)</b> Communication with the mail box is not possible although the connection is detected.	Poor contact in the connector terminals.	Check the connection of the connector of the mail box and the connector YC7 on the finisher main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective PWB.	Replace the mail box main PWB or finisher main PWB and check for correct operation.

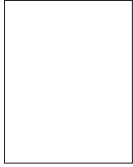
Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C8510	<b>Mail box drive motor problem (optional mail box of 3000-sheet document finisher)</b> The motor lock signal is detected above 500 ms during driving the mail box drive motor.	Poor contact in the connector terminals.	Check the connection of connector YC2 on the mail box main PWB and the connector of the mail box drive motor, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective mail box drive motor.	Replace the mail box drive motor.
		Defective PWB.	Replace the mail box main PWB or finisher main PWB and check for correct operation.
C8800	<b>Document finisher communication problem (optional 3000-sheet document finisher)</b> No communication: there is no reply after 5 retries. Abnormal communication: a communication error (parity or checksum error) is detected five times in succession.	Poor contact in the connector terminals.	Check the connection of connector on the finisher main PWB and the connector on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective PWB.	Replace the finisher main PWB or engine PWB and check for correct operation.
C8900	<b>Backup memory data problem (optional 3000-sheet document finisher)</b> Read and write data does not match.	Poor contact in the connector terminals.	Check the connection of connector on the finisher main PWB and the connector on the engine PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
C8910	<b>Backup memory data problem (optional punch unit of 3000-sheet document finisher)</b> Read and write data does not match.	Poor contact in the connector terminals.	Check the connection of connector on the punch PWB and the connector YC4 on the finisher main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective punch PWB.	Replace the punch PWB and check for correct operation.
C8920	<b>Backup memory data problem (optional mail box of 3000-sheet document finisher)</b> Read and write data does not match.	Poor contact in the connector terminals.	Check the connection of connector on the mail box main PWB and the connector YC7 on the finisher main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective mail box main PWB.	Replace the mail box main PWB and check for correct operation.
C8930	<b>Backup memory data problem (optional centerfold unit of 3000-sheet document finisher)</b> Read and write data does not match.	Poor contact in the connector terminals.	Check the connection of connector on the centerfold main PWB and the connector YC5 on the finisher main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective centerfold main PWB.	Replace the centerfold main PWB and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
<b>C9000</b>	<b>DP communication problem (optional DP)</b> A communication error is detected.	Poor contact in the connector terminals.	Check the connection of connector YC7 on the scanner PWB and the connector of the DP, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
<b>C9040</b>	<b>DP lift motor going up error (optional DP)</b> The pulse count raised to 10000 at lifting, however, the DP lift switch could not be turned on. After one time retry, the DP lift limit switch could not be turned on.	Loose connection of the DP lift motor connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Malfunction of the DP lift motor.	Replace the DP lift motor and check for correct operation.
		Malfunction of the DP lift upper limit switch.	Replace the DP lift upper limit switch and check for correct operation.
		Loose connection of the DP lift upper limit switch connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
<b>C9050</b>	<b>DP lift motor going down error (optional DP)</b> The pulse count lowered to 10000 at lifting down, however, the DP bottom limit switch could not be turned on. After one time retry, the DP bottom limit switch could not be turned on.	Loose connection of the DP lift motor connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Malfunction of the DP lift motor.	Replace the DP lift motor and check for correct operation.
		Malfunction of the DP lift lower limit switch.	Replace the DP lift lower limit switch and check for correct operation.
		Loose connection of the DP lift lower limit switch connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
<b>C9060</b>	<b>DP EEPROM error (optional DP)</b> Read and write data does not match. Data in the specified area of the backup memory does not match the specified values.	Defective DP main PWB.	Replace the DP main PWB and check for correct operation.
		Device damage of EEPROM.	Contact the Service Administrative Division.
<b>C9070</b>	<b>Communication problem between DP and SHD (optional DP)</b> A communication error is detected.	Loose connection of the SHD PWB.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective SHD PWB.	Replace the SHD PWB and check for correct operation.
<b>C9080</b>	<b>Communication problem between DP and CIS (optional DP)</b> Reading cannot be performed correctly.	Loose connection of CIS.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective CIS.	Replace CIS and check for correct operation.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
F000	Operation panel PWB communication error	Defective main PWB.	Replace the main PWB and check for correct operation.
		Defective operation panel PWB.	Replace the operation panel PWB and check for correct operation.
F010	Main PWB checksum error	Defective main PWB.	Replace the main PWB and check for correct operation.
F020	Memory checksum error	Defective main PWB.	Replace the main PWB and check for correct operation.
		Defective expansion memory.	Replace the expansion memory and check for correct operation.
F030	Main PWB system error	Defective main PWB.	Replace the main PWB and check for correct operation.
F040	Engine PWB communication error	Defective main PWB.	Replace the main PWB and check for correct operation.
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
F041	Scanner PWB communication error	Defective main PWB.	Replace the main PWB and check for correct operation.
		Defective scanner PWB.	Replace the scanner PWB and check for correct operation.
F050	Engine ROM checksum error	Defective engine PWB.	Replace the engine PWB and check for correct operation.
F060	Engine RAM error	Defective engine PWB.	Replace the engine PWB and check for correct operation.
F070	Flash ROM error	Defective flash ROM.	Replace the flash ROM and check for correct operation.
F080	Flash ROM error (during download)	Defective flash ROM.	Replace the flash ROM and check for correct operation.
F090	Fax control PWB communication error	Defective main PWB.	Replace the main PWB and check for correct operation.

### 1-4-3 Image formation problems

(1) No image appears (entirely white).



See page 1-4-45.

(2) No image appears (entirely black).



See page 1-4-45.

(3) Image is too light.



See page 1-4-46.

(4) Background is visible.



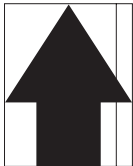
See page 1-4-46.

(5) A white line appears longitudinally.



See page 1-4-46.

(6) A black line appears longitudinally.



See page 1-4-47.

(7) A black line appears laterally.



See page 1-4-47.

(8) One side of the copy image is darker than the other.



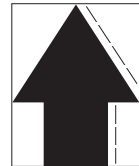
See page 1-4-47.

(9) Black dots appear on the image.



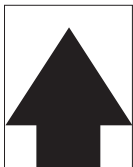
See page 1-4-47.

(10) Image is blurred.



See page 1-4-48.

(11) The leading edge of the image is consistently misaligned with the original.



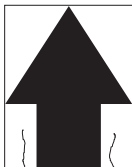
See page 1-4-48.

(12) The leading edge of the image is sporadically misaligned with the original.



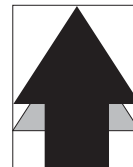
See page 1-4-48.

(13) Paper creases.



See page 1-4-48.

(14) Offset occurs.



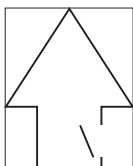
See page 1-4-49.

(15) Image is partly missing.



See page 1-4-49.

(16) Fusing is poor.



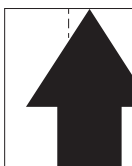
See page 1-4-49.

(17) Image is out of focus.



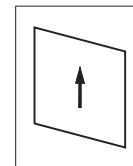
See page 1-4-49.

(18) Image center does not align with the original center.




See page 1-4-50.

(19) Image is not square.




See page 1-4-50.


**(1) No image appears (entirely white).**

Copy example	Causes		Check procedures/corrective measures
	No transfer charging.	The connector terminals of the high voltage PWB make poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective engine PWB.	Check if YC7-10 on the engine PWB goes low when maintenance item U101 is run. If not, replace the engine PWB.
		Defective high voltage PWB.	Check if transfer charging takes place when CN1-5 on the high voltage PWB goes low while maintenance item U101 is run. If not, replace the high voltage PWB.
	No LSU laser is output.	Defective laser scanner unit.	Replace the laser scanner unit (see page 1-5-21).
		Defective main PWB.	Check if YC21-A3 on the main PWB goes low when maintenance item U100 is run. If not, replace the main PWB.
	No developing bias output.	The connector terminals of the high voltage PWB make poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective engine PWB.	Check if YC7-1 on the engine PWB goes low when maintenance item U101 is run. If not, replace the engine PWB.
		Defective high voltage PWB.	Check if developing bias is output when CN1-14 on the high voltage PWB goes low while maintenance item U101 is run. If not, replace the high voltage PWB.

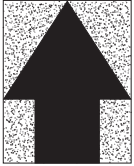
**(2) No image appears (entirely black).**

Copy example	Causes		Check procedures/corrective measures
	No main charging.	Broken main charger wire.	Replace the main charger unit (see page 1-5-25).
		Leaking main charger housing.	Clean the main charger wire and grid.
		The connector terminals of the high voltage PWB make poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective engine PWB.	Check if YC7-4 on the engine PWB goes low when maintenance item U100 is run. If not, replace the engine PWB.
		Defective high voltage PWB.	Check if main charging takes place when CN1-11 on the high voltage PWB goes low while maintenance item U100 is run. If not, replace the high voltage PWB.
	Exposure lamp fails to light.	Poor contact in the exposure lamp connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective inverter PWB.	Check if the exposure lamp lights when YC1-3 on the inverter PWB goes low while maintenance item U061 is run. If not, replace the inverter PWB.
		Defective scanner PWB.	Check if YC6-3 on the scanner PWB goes low when maintenance item U061 is run. If not, replace the scanner PWB.


**(3) Image is too light.**

Copy example	Causes		Check procedures/corrective measures
	Insufficient toner.		If the display shows the message requesting toner replenishment, replace the container.
	Deteriorated toner.		Perform the drum refresh operation.
	Defective transfer charging output.	The connector terminals of the high voltage PWB make poor contact.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
		Defective engine PWB.	Check if YC7-10 on the engine PWB goes low when maintenance item U101 is run. If not, replace the engine PWB.
	Defective high voltage PWB.		Check if transfer charging takes place when CN1-5 on the high voltage PWB goes low while maintenance item U101 is run. If not, replace the high voltage PWB.

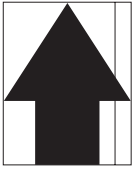
**(4) Background is visible.**

Copy example	Causes		Check procedures/corrective measures
	Deteriorated toner.		Perform the drum refresh operation.
	Dirty main charger wire.		Clean the wire or, if it is extremely dirty, replace it (see page 1-5-25).


**(5) A white line appears longitudinally.**

Copy example	Causes		Check procedures/corrective measures
	Foreign matter in the developing unit.		Check if the magnetic brush is formed uniformly. Replace the developing unit if any foreign matter (see page 1-5-26).
	Dirty shading plate.		Clean the shading plate.


**(6) A black line appears longitudinally.**

Copy example	Causes	Check procedures/corrective measures
	Dirty contact glass.	Clean the contact glass.
	Dirty or flawed drum.	Perform the drum refresh operation. If the drum is flawed, replace the drum unit (see page 1-5-24).
	Deformed or worn cleaning blade.	Replace the drum unit (see page 1-5-24).
	Dirty scanner mirror.	Clean the scanner mirror.
	Dirty main charger wire.	Clean the wire or, if it is extremely dirty, replace it (see page 1-5-25).


**(7) A black line appears laterally.**

Copy example	Causes	Check procedures/corrective measures
	Flawed drum.	Replace the drum unit (see page 1-5-24).
	Dirty developing section.	Clean any part contaminated with toner in the developing section.
	Leaking main charger housing.	Clean the main charger wire and grid.
	Leaking separation electrode.	Clean the separation electrode.

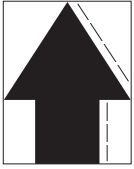
**(8) One side of the copy image is darker than the other.**

Copy example	Causes	Check procedures/corrective measures
	Dirty main charger wire.	Clean the wire or, if it is extremely dirty, replace it (see page 1-5-25).
	Defective exposure lamp.	Check if the exposure lamp light is distributed evenly. If not, replace the exposure lamp (see page 1-5-11).


**(9) Black dots appear on the image.**

Copy example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum refresh operation. If the drum is flawed, replace the drum unit (see page 1-5-24).
	Dirty contact glass.	Clean the contact glass.
	Deformed or worn cleaning blade.	Replace the drum unit (see page 1-5-24).
	Dirty drum separation claws.	Clean the drum separation claws.
	Dirty the heat roller separation claws.	Clean the heat roller separation claws.


**(10) Image is blurred.**

Copy example	Causes	Check procedures/corrective measures
	Scanner moves erratically.	Check if there is any foreign matter on the front and rear scanner rails. If any, remove it.
	Deformed press roller.	Replace the press roller (see page 1-5-30).
	Paper conveying section drive problem.	Check the gears and belts and, if necessary, grease them.

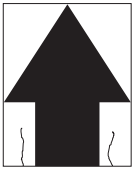
**(11) The leading edge of the image is consistently misaligned with the original.**

Copy example	Causes	Check procedures/corrective measures
	Misadjusted leading edge registration.	Run maintenance mode U034 to readjust the leading edge registration (see page 1-3-18).
	Misadjusted scanner leading edge registration.	Run maintenance mode U066 to readjust the scanner leading edge registration (see page 1-3-24).

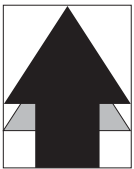
**(12) The leading edge of the image is sporadically misaligned with the original.**

Copy example	Causes	Check procedures/corrective measures
	Feed clutch, paper feed clutch, MP paper feed clutch or registration clutch installed or operating incorrectly.	Check the installation position and operation of each clutch. If any of them operates incorrectly, replace it.

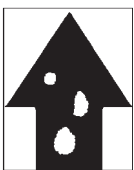
**(13) Paper creases.**

Copy example	Causes	Check procedures/corrective measures
	Paper curled.	Check the paper storage conditions.
	Paper damp.	Check the paper storage conditions.
	Defective pressure springs.	Replace the pressure springs.
	Defective separation.	Check the drum separation claws and heat roller separation claws.

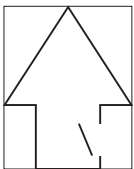
**(14) Offset occurs.**

Copy example	Causes	Check procedures/corrective measures
	Defective cleaning blade.	Replace the drum unit (see page 1-5-24).
	Defective fuser unit.	Check the heat roller and press roller.
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.


**(15) Image is partly missing.**

Copy example	Causes	Check procedures/corrective measures
	Paper damp.	Check the paper storage conditions.
	Paper creased.	Change the paper.
	Drum condensation.	Perform the drum refresh operation.
	Dirty or flawed drum.	Perform the drum refresh operation. If the drum is flawed, replace the drum unit (see page 1-5-24).

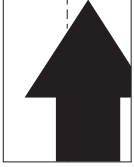
**(16) Fusing is poor.**

Copy example	Causes	Check procedures/corrective measures
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.
	Defective pressure springs.	Replace the pressure springs.
	Flawed press roller.	Replace the press roller (see page 1-5-30).
	Flawed fuser heater.	Replace the fuser heater (see page 1-5-31).

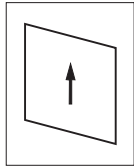
**(17) Image is out of focus.**

Copy example	Causes	Check procedures/corrective measures
	Defective image scanning unit.	Replace the image scanning unit (see page 1-5-18).
	Drum condensation.	Perform the drum refresh operation.

**(18) Image center does not align with the original center.**

Copy example	Causes	Check procedures/corrective measures
	Misadjusted image center line.	Run maintenance item U034 to readjust the center line of image printing (see page 1-3-19).
	Misadjusted scanner center line.	Run maintenance item U067 to readjust the scanner leading edge registration (see page 1-3-25).
	Original is not placed correctly.	Place the original correctly.

**(19) Image is not square.**

Copy example	Causes	Check procedures/corrective measures
	Laser scanner unit positioned incorrectly.	Adjust the installation position of the laser scanner unit (see page 1-5-23).

### 1-4-4 Electric problems

Troubleshooting to each failure must be in the order of the numbered symptoms.

Problem	Causes	Check procedures/corrective measures
(1) The machine does not operate when the main power switch is turned on.	1. The power cord is not plugged in properly.	Check the contact between the power plug and the outlet.
	2. No electricity at the power outlet.	Measure the input voltage.
	3. Broken power cord.	Check for continuity. If none, replace the cord.
	4. Defective main power switch.	Check for continuity across the contacts. If none, replace the main power switch.
	5. Defective power source PWB.	With AC present, check for 24 V DC at YC1-7 on the power source PWB, 5 V DC at YC1-6 and 3.3 V DC at YC1-5. If none, replace the power source PWB.
(2) The eject motor does not operate.	1. Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
	3. Defective eject motor.	Run maintenance item U030 and check if the eject motor operates. If not, replace the eject motor.
	4. Defective engine PWB.	Run maintenance item U030 and check if the eject motor operates. If not, replace the engine PWB.
(3) The scanner motor or cooling fan motor 1 to 13 does not operate.	1. Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Broken motor coil.	Check for continuity across the coil. If none, replace the motor.
(4) The upper/lower paper feed clutch, feed clutch 1/2/3, MP paper feed clutch, MP feed clutch, registration clutch or duplex feed clutch does not operate.	1. Broken clutch coil.	Check for continuity across the coil. If none, replace the clutch.
	2. Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	3. Defective engine PWB.	Run maintenance item U032 and check if following terminals on the engine PWB goes low. If not, replace the engine PWB. Upper paper feed clutch: YC14-B1 on the engine PWB Lower paper feed clutch: YC14-B4 on the engine PWB Feed clutch 1: YC11-14 on the engine PWB Feed clutch 2: YC13-A12 on the engine PWB Feed clutch 3: YC13-A5 on the engine PWB MP paper feed clutch: YC6-A9 on the engine PWB MP feed clutch: YC6-A11 on the engine PWB Registration clutch: YC14-B6 on the engine PWB Duplex feed clutch: YC10-B2 on the engine PWB
(5) The feedshift solenoid or toner feed solenoid does not operate.	1. Broken solenoid coil.	Check for continuity across the coil. If none, replace the solenoid.
	2. Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	3. Defective engine PWB.	Run maintenance item U033 and check if the solenoid operates. If not, replace the engine PWB.

Problem	Causes	Check procedures/corrective measures
(6) The exposure lamp does not turn on or off.	1. Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective scanner PWB.	Run maintenance item U061 and check if YC6-3 on the scanner PWB goes low. If not, replace the scanner PWB.
		If YC6-3 on the scanner PWB is always low, replace the scanner PWB.
	3. Defective inverter PWB.	Run maintenance item U061 and check if the exposure lamp turns on with YC1-3 on the inverter PWB go low. If not, replace the inverter PWB.
		If the exposure lamp does not turn off with YC1-3 on the inverter PWB high, replace the inverter PWB.
	4. Defective exposure lamp.	Replace the exposure lamp even if checking or correcting other measures.
(7) Main charging is not performed.	1. Broken main charger wire.	(See page 1-4-45.)
	2. Leaking main charger housing.	
	3. The connector terminals of the high voltage PWB make poor contact.	
	4. Defective engine PWB.	
	5. Defective high voltage PWB.	
(8) No developing bias is output.	1. The connector terminals of the high voltage PWB make poor contact.	(See page 1-4-45.)
	2. Defective engine PWB.	
	3. Defective high voltage PWB.	
(9) Transfer charging is not performed.	1. The connector terminals of the high voltage PWB make poor contact.	(See page 1-4-45.)
	2. Defective engine PWB.	
	3. Defective high voltage PWB.	
(10) The original size is not detected correctly.	1. Original is not placed correctly.	Check the original and correct if necessary.
	2. Poor contact in the original detection switch or original size detection sensor connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	3. Defective original detection switch.	If the level of YC4-5 on the scanner PWB does not go low when the original detection switch is turned on and off, replace the original detection switch.
	4. Defective original size detection sensor.	Check if sensor operates correctly. If not, replace it.

Problem	Causes	Check procedures/corrective measures
(11) The touch panel keys do not work.	1. Poor contact in the touch panel connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective touch panel or main operation PWB.	If any keys do not work after running the maintenance item U201 to initialize the touch panel, replace the touch panel or main operation PWB.
(12) The message requesting paper to be loaded is shown when paper is present on the cassette 1/2 or MP tray.	1. Poor contact in the connector terminals of upper/lower paper switch or MP paper switch.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective upper/lower paper switch or MP paper switch.	If the level of following terminal on PWB does not go low when the switch is turned on and off, replace the switch. Upper paper switch: YC13-B12 on the engine PWB Lower paper switch: YC13-B18 on the engine PWB MP paper switch: YC6-A6 on the engine PWB
(13) The size of paper on the cassette 1/2 or MP tray is not displayed correctly.	1. Poor contact in the connector terminals of upper/lower paper size length switch, upper/lower paper size width switch, MP paper size length switch or MP paper size width switch.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective upper/lower paper size length switch or MP paper size length switch.	If the level of following terminal on PWB does not go low when the switch is turned on and off, replace the switch. Upper paper size length switch: YC13-B2 on the engine PWB Lower paper size length switch: YC13-A19 on the engine PWB MP paper size length switch: YC6-B11 on the engine PWB
	3. Defective upper/lower paper size width switch or MP paper size width switch.	If the level of following terminal on PWB does not change when the width guide in the cassette 1/2 or insert guide on the MP tray is moved, replace the switch. Upper paper size width switch: YC12-3, 4, 5 on the engine PWB Lower paper size width switch: YC12-9, 10, 11 on the engine PWB MP paper size width switch: YC6-A1, A2, A3 on the engine PWB
(14) A paper jam in the paper feed, paper conveying, fuser, eject or duplex section is indicated when the main power switch is turned on.	1. A piece of paper torn from copy paper is caught around feed switch 1/2/3, registration switch, feedshift switch, eject switch or duplex paper conveying switch.	Check visually and remove it, if any.
	2. Defective feed switch 1/2/3, registration switch, feedshift switch, eject switch or duplex paper conveying switch.	Run maintenance item U031 and turn each switch on and off manually. Replace the switch if indication of the corresponding switch on the touch panel is not displayed in reverse.

Problem	Causes	Check procedures/corrective measures
(15) The message requesting cover to be closed is displayed when the front cover or left cover 1/2 is closed.	1. Poor contact in the connector terminals of front cover switch, left cover 1 switch or left cover 2 switch.	Reinsert the connector. Also check for continuity within the connector cable. If none, remedy or replace the cable.
	2. Defective front cover switch, left cover 1 switch or left cover 2 switch.	Check for continuity across each switch. If there is no continuity when the switch is on, replace it.
(16) Others.	1. Wiring is broken, shorted or makes poor contact.	Check for continuity. If none, repair.

## 1-4-5 Mechanical problems

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following rollers or pulleys are dirty with paper powder: upper/lower forwarding pulleys, upper/lower paper feed pulleys, upper/lower separation pulleys, feed rollers, registration rollers, MP forwarding pulley, MP paper feed pulley and MP separation pulley.	Clean with isopropyl alcohol.
	Check if the upper/lower forwarding pulleys, upper/lower paper feed pulleys or upper/lower separation pulleys is deformed.	Replace the pulley if it is deformed (see page 1-5-2).
	Check if the MP forwarding pulley, MP paper feed pulley or MP separation pulley is deformed.	Replace the pulley if it is deformed (see page 1-5-4).
	Electrical problem with the following clutches: upper/lower paper feed clutches, feed clutches 1/2/3, MP paper feed clutch and MP feed clutch.	See page 1-4-51.
(2) No secondary paper feed.	Check if the surfaces of the right and left registration rollers are dirty with paper powder.	Clean with isopropyl alcohol.
	Electrical problem with the registration clutch.	See page 1-4-51.
(3) Skewed paper feed.	Width guide in a cassette installed incorrectly.	Check the width guide visually and correct or replace if necessary.
	Deformed width guide in a cassette.	Check visually and replace any deformed guide.
	Check if a pressure spring along the paper conveying path is deformed or out of place.	Repair or replace.
(4) The scanner does not travel.	Check if the scanner wire is loose.	Reinstall the scanner wire (see page 1-5-13).
	The scanner motor malfunctions.	See page 1-4-51.
(5) Multiple sheets of paper are fed at one time.	Paper is extremely curled.	Change the paper.
	Check if the upper or lower separation pulley is worn.	Replace the upper or lower separation pulley if it is worn (see page 1-5-2).
	Check if the MP separation pulley is worn.	Replace the MP separation pulley if it is worn (see page 1-5-4).

Problem	Causes/check procedures	Corrective measures
(6) Paper jams.	Paper is extremely curled.	Change the paper.
	Deformed guides along the paper conveying path.	Check visually and replace any deformed guides.
	Check if the contact between the right and left registration rollers is correct.	Check visually and remedy if necessary.
	Check if the contact between the feed roller and feed pulley is correct.	Check visually and remedy if necessary.
	Check if the press roller is extremely dirty or deformed.	Clean or replace the press roller.
	Check if the contact between the heat roller and its separation claws is correct.	Repair if any springs are off the separation claws.
	Check if the contact between the eject roller and pulley is correct.	Check visually and remedy if necessary.
	The feedshift solenoid malfunctions.	See page 1-4-51.
	Check if the duplex feed pulley, upper duplex feed roller or lower duplex feed roller is deformed.	Check visually and replace the pulley or roller if deformed.
(7) Toner drops on the paper conveying path.	Check if the developing unit is extremely dirty.	Clean the developing unit.
(8) Abnormal noise is heard.	Check if the pulleys, rollers and gears operate smoothly.	Grease the bearings and gears.
	Check if the following clutches are installed correctly: upper/lower paper feed clutches, feed clutches 1/2/3, MP paper feed clutch and MP feed clutch.	Correct.

## **1-5-1 Precautions for assembly and disassembly**

### **(1) Precautions**

Before starting disassembly, press the Power key on the operation panel to off. Make sure that the Power indicator and the Memory indicator are off before turning off the main power switch. And then unplug the power cable from the wall outlet.

Turning off the main power switch before pressing the Power key to off may cause damage to the equipped hard disk.

When optional fax kit is installed, be sure to disconnect the modular code before starting disassembly.

When handling PWBs (printed wiring boards), do not touch parts with bare hands.

The PWBs are susceptible to static charge. Do not touch any PWB containing ICs with bare hands or any object prone to static charge.

Use only the specified parts to replace the fuser unit thermostat. Never substitute electric wires, as the machine may be seriously damaged.

When replacing battery on a PWB, dispose properly according to laws and regulations.

When removing the hook of the connector, be sure to release the hook.

### **(2) Drum**

Note the following when handling or storing the drum.

When removing the drum unit, never expose the drum surface to strong direct light.

Keep the drum at an ambient temperature between 0°C/32°F and 35°C/95°F and at a relative humidity not higher than 85% RH. Avoid abrupt changes in temperature and humidity.

Avoid exposure to any substance which is harmful to or may affect the quality of the drum.

Do not touch the drum surface with any object. Should it be touched by hands or stained with oil, clean it.

### **(3) Toner**

Store the toner container in a cool, dark place.

Avoid direct light and high humidity.

## 1-5-2 Paper feed section

### (1) Detaching and refitting the forwarding, paper feed and separation pulleys

Follow the procedure below to replace the forwarding, paper feed and separation pulleys.

#### Procedure

##### Removing the primary paper feed units

1. Open the front cover and pull out the cassettes 1 and 2.
2. Remove the screw and remove the primary paper feed unit.

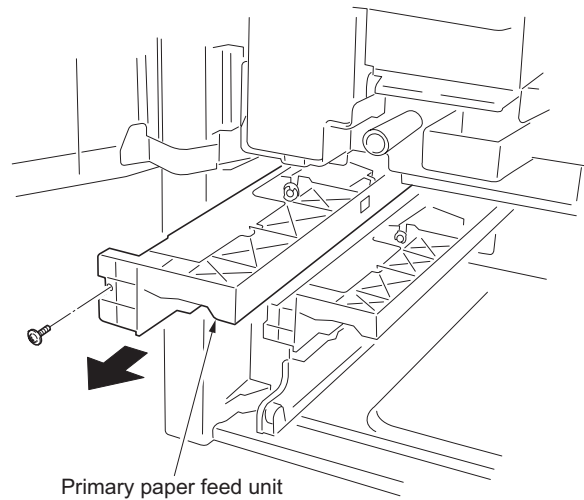


Figure 1-5-1

##### Removing the forwarding pulley

3. Remove the stopper from the primary paper feed unit.
4. Raise the forwarding pulley retainer in the direction the arrow, and remove from the primary paper feed unit.

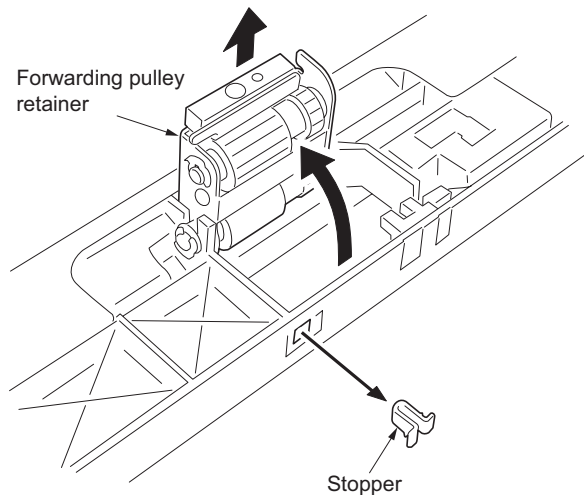


Figure 1-5-2

5. Remove the stop ring from the forwarding pulley retainer.
6. Remove the forwarding pulley from the forwarding pulley shaft.

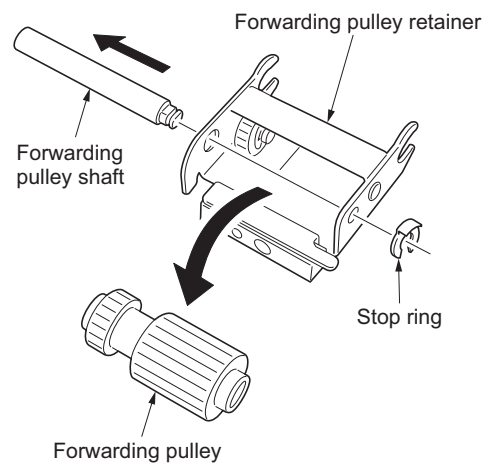


Figure 1-5-3

### Removing the paper feed pulley

7. Remove two stop rings from the primary paper feed unit.
8. Pull the paper feed pulley shaft in the direction of the arrow and remove the paper feed pulley.

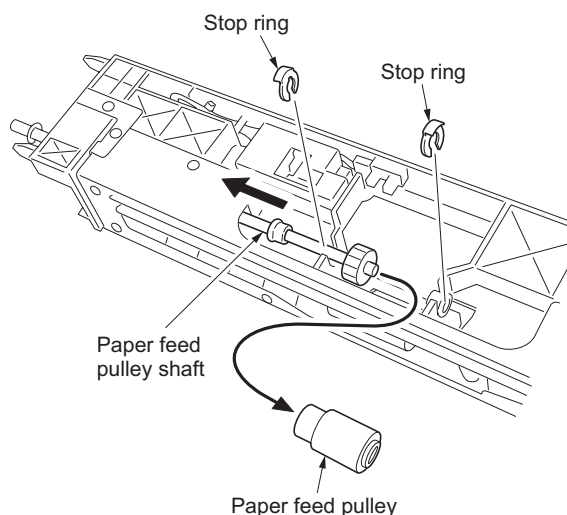


Figure 1-5-4

### Removing the separation pulley

9. Remove the stop ring from the primary paper feed unit.
10. Pull the separation pulley shaft in the direction of the arrow and remove the separation pulley.

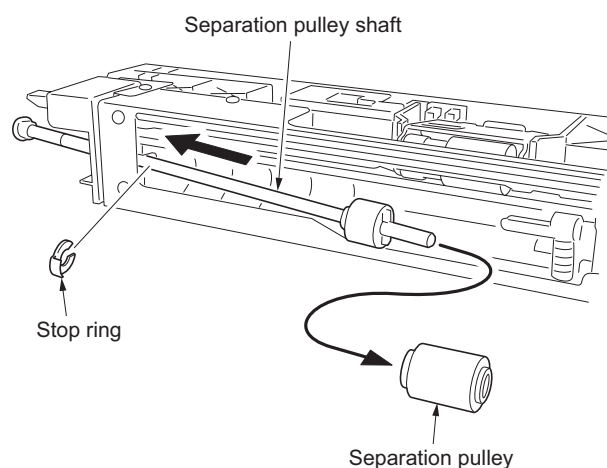


Figure 1-5-5

11. Replace the forwarding, paper feed and separation pulleys.
12. Install the separation and paper feed pulleys to the primary paper feed unit.
13. Install the forwarding pulley to the forwarding pulley retainer.  
When refitting the forwarding pulley, orient it correctly as shown in Figure 1-5-6.
14. Refit the forwarding pulley retainer to the primary paper feed unit.
15. Refit the primary paper feed unit.

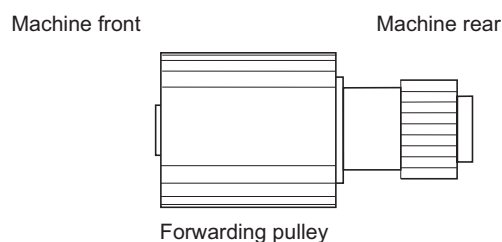


Figure 1-5-6

16. When the forwarding pulley, paper feed pulley, separation pulley or the primary paper feed unit is replaced, perform maintenance mode U903 to clear the jam counter (see page 1-3-75).

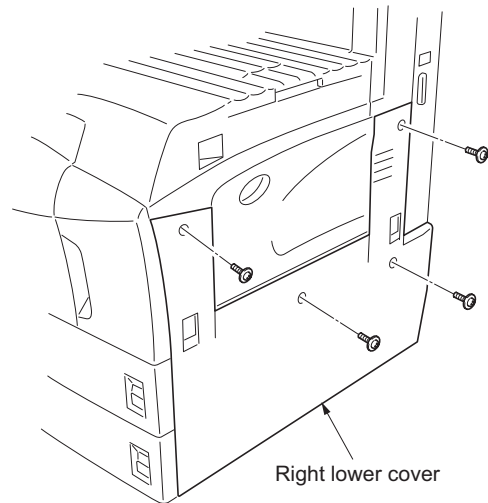
## (2) Detaching and refitting the MP separation, MP paper feed and MP forwarding pulleys

Follow the procedure below to replace the MP separation, MP paper feed and MP forwarding pulleys.

### Procedure

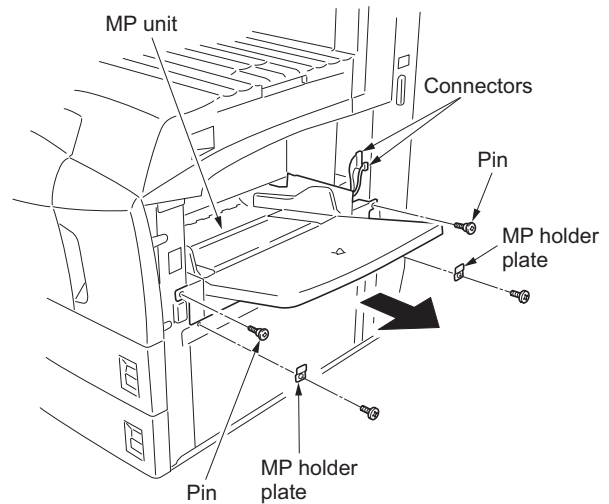
#### Removing the MP unit

1. Remove four screws and remove the right lower cover.



**Figure 1-5-7**

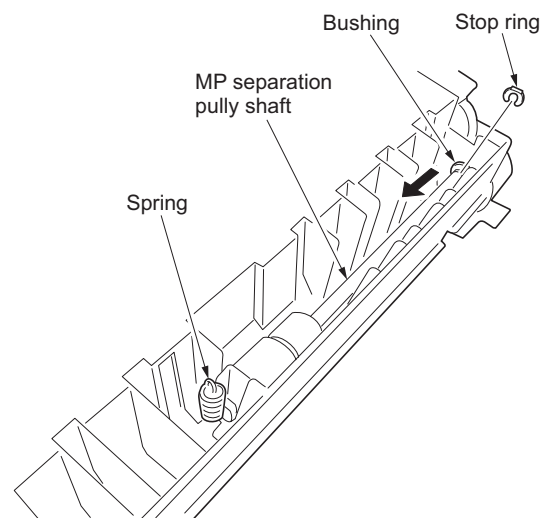
2. Remove two screws and two MP holder plates.
3. Remove two pins, two screws and two connectors, and then remove the MP unit.



**Figure 1-5-8**

#### Removing the MP separation pulley

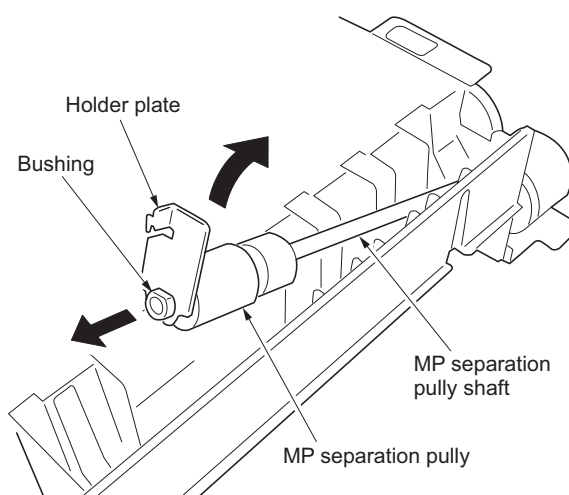
4. Reverse the MP unit and remove the spring and stop ring from the MP separation pulley shaft and move the bushing inside.



**Figure 1-5-9**

5. Raise the MP separation shaft as shown in the figure, remove the holder plate and the bushing, and then remove the MP separation pulley.

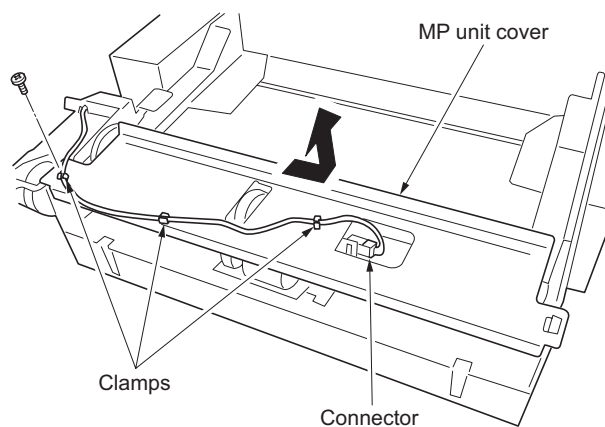
Take care not to remove the spring pin of the gear at the rear of the MP separation pulley shaft. If it is removed, refit it to its original position.



**Figure 1-5-10**

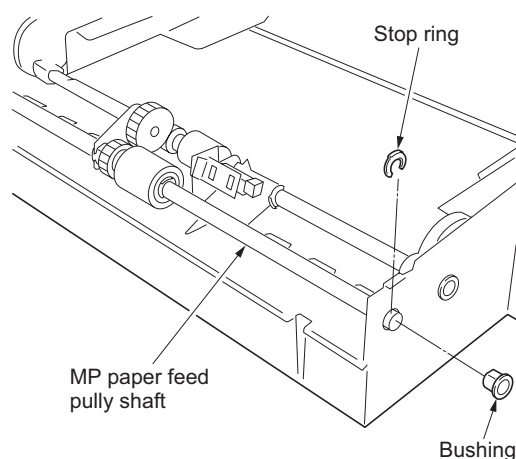
#### **Removing the MP paper feed pulley**

6. Remove the connector of the MP paper switch and remove the wire from the three clamps.
7. Remove the screw and remove the MP unit cover.



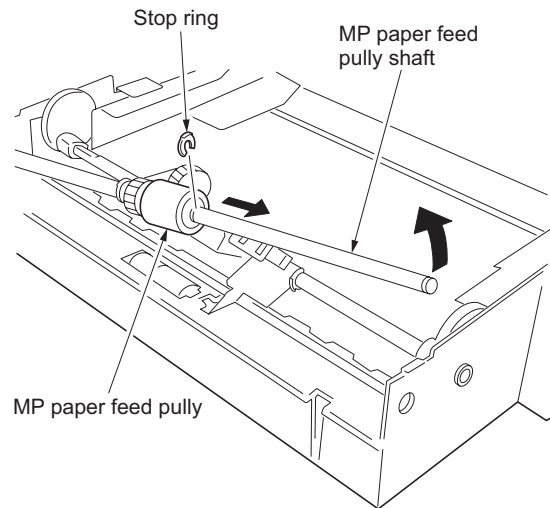
**Figure 1-5-11**

8. Remove the stop ring and bushing on the front of the MP paper feed pulley shaft.



**Figure 1-5-12**

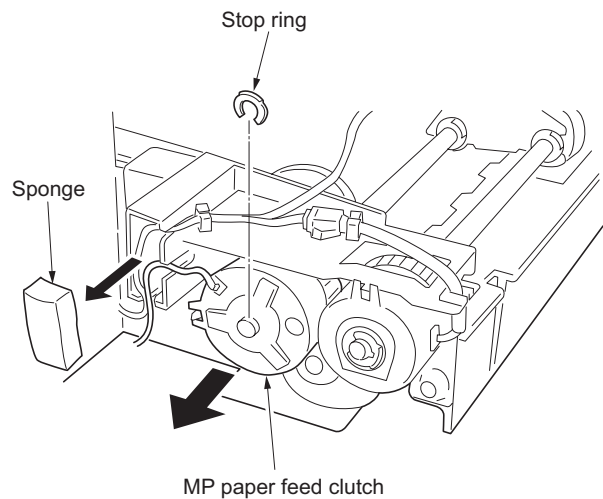
9. Raise the MP paper feed pulley shaft as shown in the figure, remove the stop ring, and then remove the MP paper feed pulley.



**Figure 1-5-13**

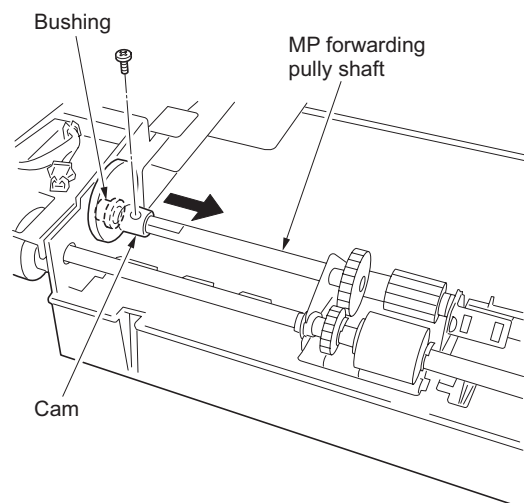
#### **Removing the MP forwarding pulley**

10. Remove the sponge.
  11. Remove the stop ring and MP paper feed clutch.
- When refitting, insert the cutout in the MP paper feed clutch over the stopper on the machine.



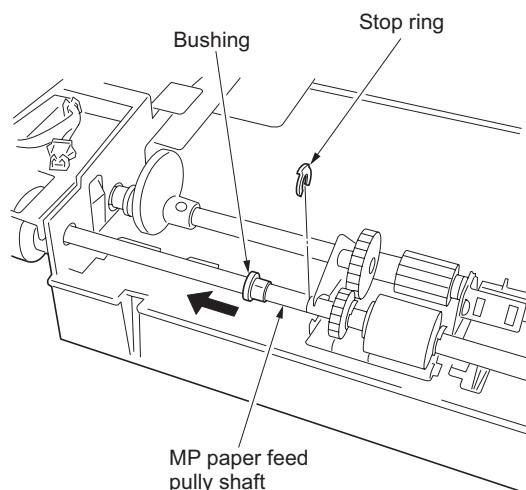
**Figure 1-5-14**

12. Remove the screw from the cam at the rear of the MP forwarding pulley shaft and move the cam and the bushing toward the inner side.



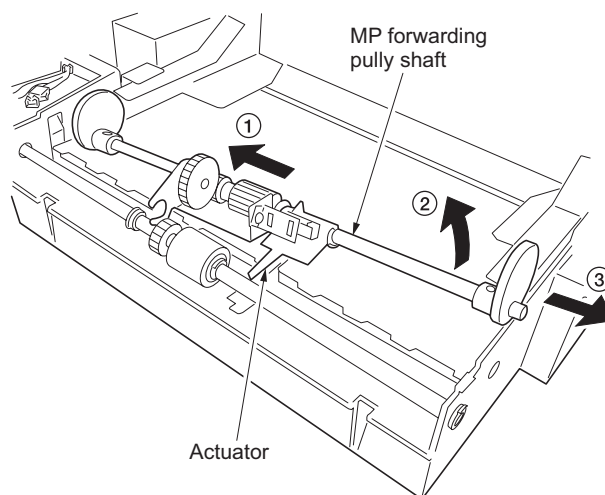
**Figure 1-5-15**

13. Remove the stop ring of the MP paper feed pulley shaft and slide the bushing in the direction of the arrow.



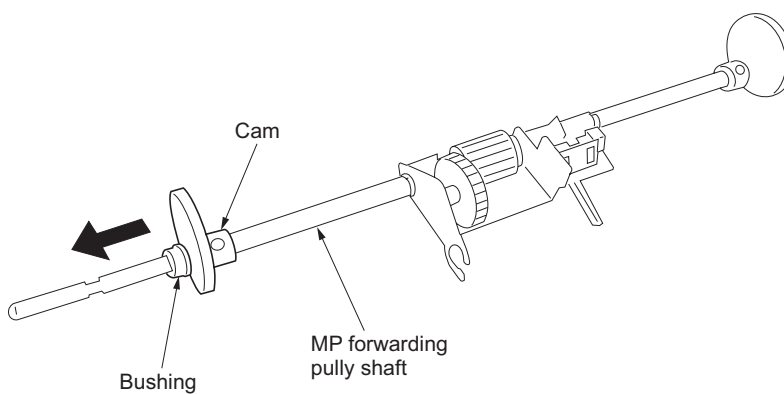
**Figure 1-5-16**

14. Slide the MP forwarding pulley shaft temporarily toward the rear side and then raise it to remove from the MP unit. Remove the shaft while raising the actuator of the MP paper switch.



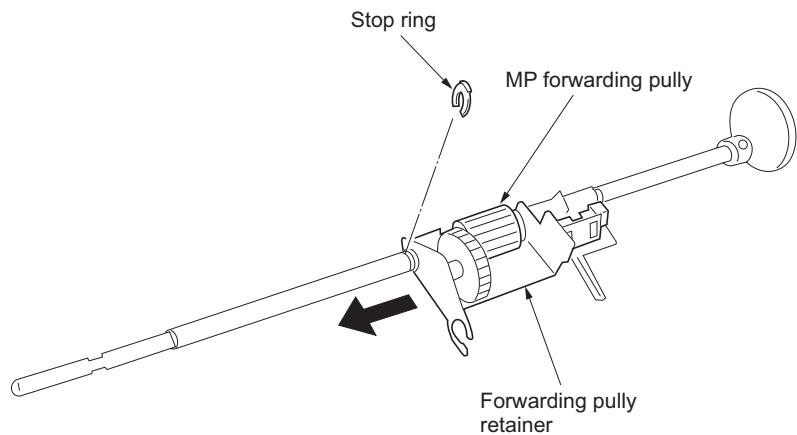
**Figure 1-5-17**

15. Remove the bushing and cam on the rear of the MP forwarding pulley shaft.



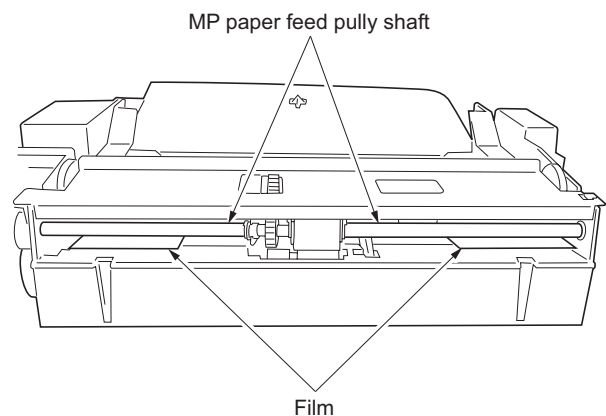
**Figure 1-5-18**

16. Remove the stop ring and slide the MP forwarding pulley with the forwarding pulley retainer from the shaft to remove it.
17. Replace the MP separation, MP paper feed and MP forwarding pulleys.



**Figure 1-5-19**

18. Install the MP forwarding pulley to the MP forwarding pulley shaft.
19. Refit the MP forwarding pulley shaft to the MP unit.
20. Install the MP paper feed pulley to the MP unit.
21. Refit the MP unit cover to the MP unit.  
When refitting the MP unit cover, the film on the cover is positioned under the MP paper feed pulley shaft.
22. Install the MP separation pulley to the MP unit.
23. Refit the MP unit.



**Figure 1-5-20**

24. When the MP forwarding pulley, MP paper feed pulley or the MP separation pulley is replaced, perform maintenance mode U903 to clear the jam counter (see page 1-3-75).

### (3) Detaching and refitting the left and right registration cleaner

Take the following procedure when the left or right registration cleaner is to be replaced.

#### Procedure

##### Removing the left registration cleaner

1. Open the left cover 1 and remove the transfer roller unit. (see page 1-5-27).
2. Remove two roller stoppers and remove the left registration roller.
3. Remove two registration guides.

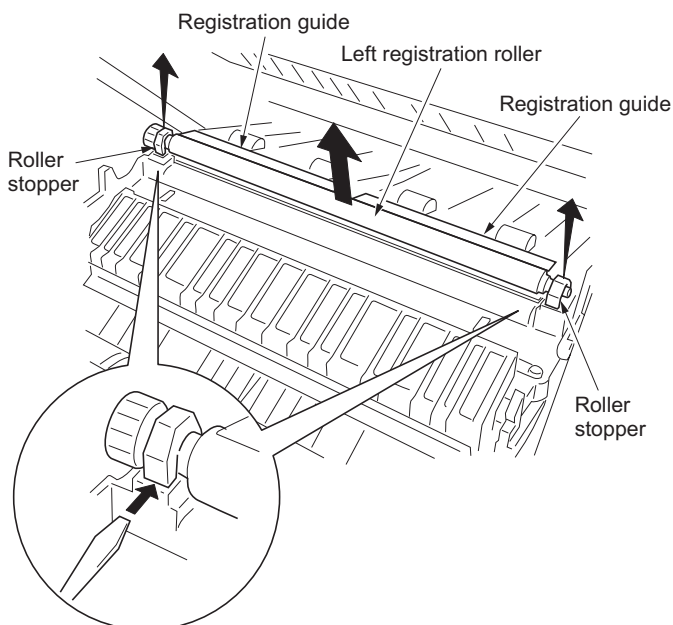


Figure 1-5-21

4. Remove the left registration cleaner
5. Replace the left registration cleaner and registration guides.  
Install the left registration cleaner and registration guides.
6. Refit the left registration roller, roller stoppers and transfer roller unit.

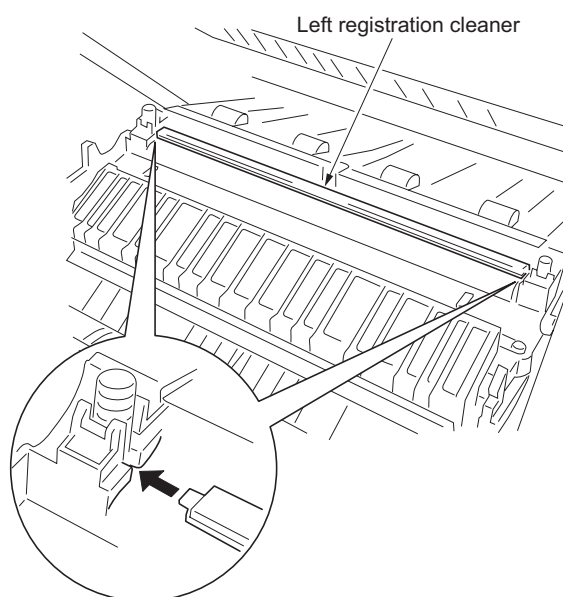
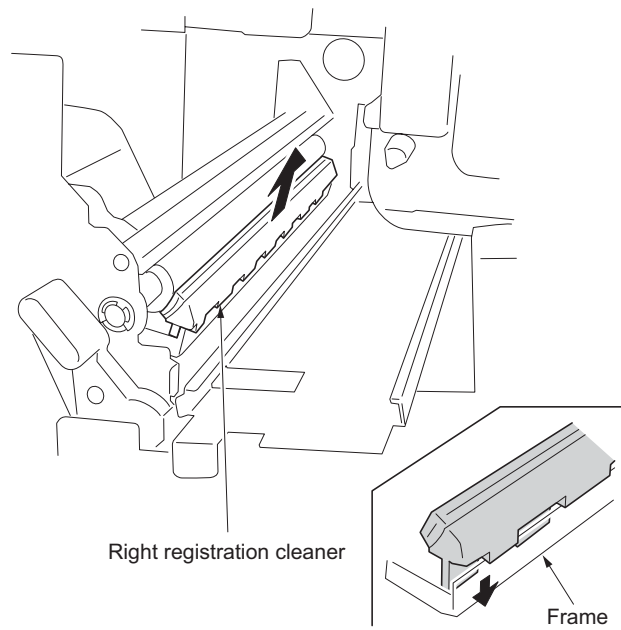


Figure 1-5-22

**Removing the right registration cleaner**

1. Remove the developing unit and drum unit.  
(see pages 1-5-26 and 24).
2. Remove the right registration cleaner.
3. Replace the right registration cleaner and  
Install the cleaner.
4. Refit the drum unit and developing unit.



**Figure 1-5-23**

### 1-5-3 Optical section

#### (1) Detaching and refitting the exposure lamp

Replace the exposure lamp as follows.

##### Procedure

1. Remove the original cover or the DP.
2. Remove ten screws and remove the rear cover.

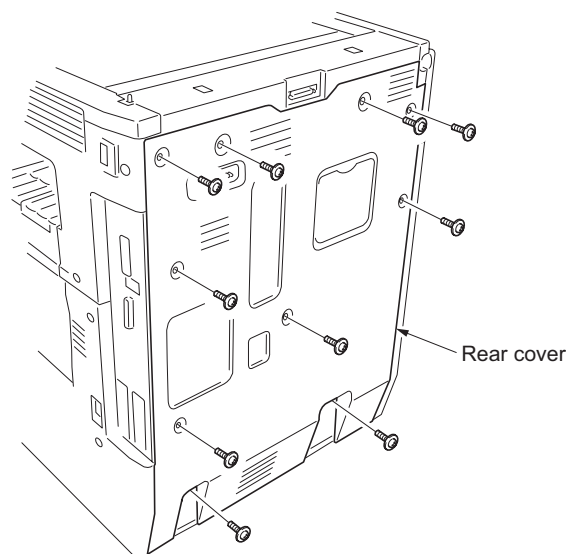


Figure 1-5-24

3. Remove two screws and remove the scanner right cover.
4. Remove the platen.

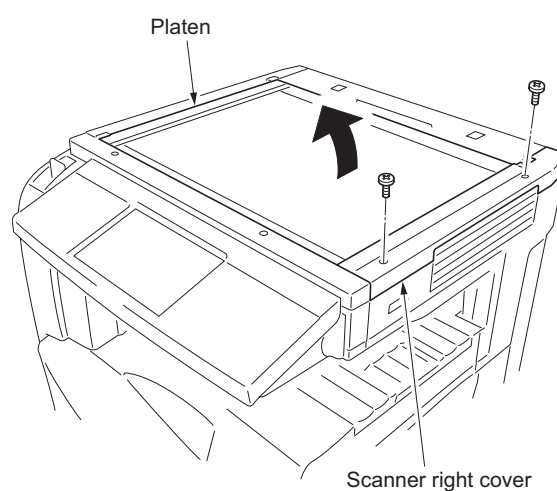


Figure 1-5-25

5. Remove the connector of the inverter PWB.
6. Release the wire from the wire saddles and pull the connector out from the opening on the rear of the scanner unit.

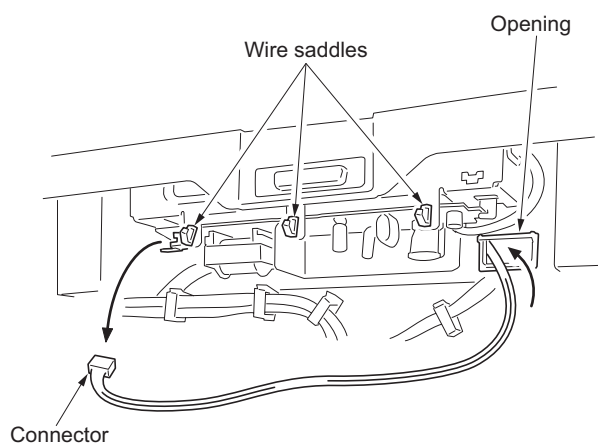
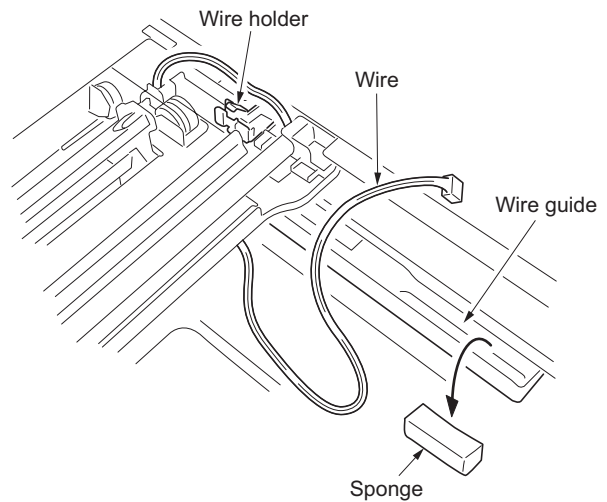


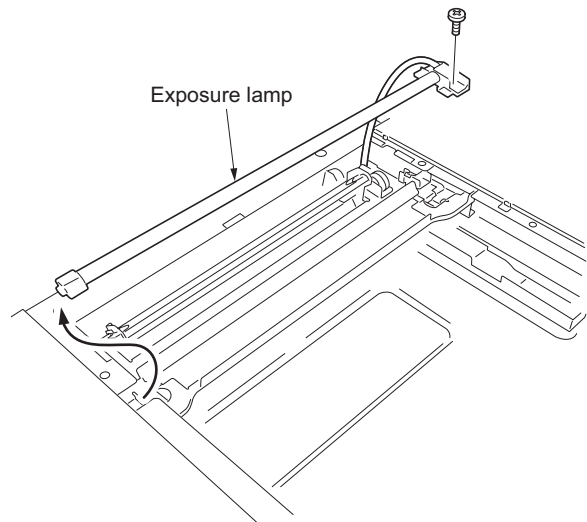
Figure 1-5-26

7. Remove the sponge from the wire guide and release the wire.
8. Move the mirror 1 frame to notch position and release the wire from the wire holder.



**Figure 1-5-27**

9. Remove the screw and remove the exposure lamp.
10. Replace the exposure lamp and install the lamp.
11. Refit the platen, scanner right cover and rear cover.



**Figure 1-5-28**

## (2) Detaching and refitting the scanner wires

Take the following procedure when the scanner wires are broken or to be replaced.

### NOTE

When fitting the wires, be sure to use those specified below.

Machine front: (P/N: 302GR17110), gray

Machine rear: (P/N: 302GR17100), black

### Fitting requires the following tools

Two frame securing tools (P/N 302C968310)

Two scanner wire stoppers (P/N 3596811)

### Procedure

#### Detaching the scanner wires

1. Remove the exposure lamp (see page 1-5-11).
2. Remove the clip holder.
3. Open the front cover and left cover 1.
4. Remove four screws and remove front left cover.

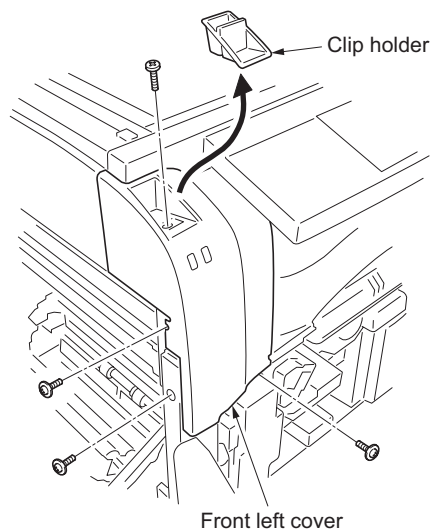


Figure 1-5-29

5. Remove the screw and pin and then remove the left upper cover.

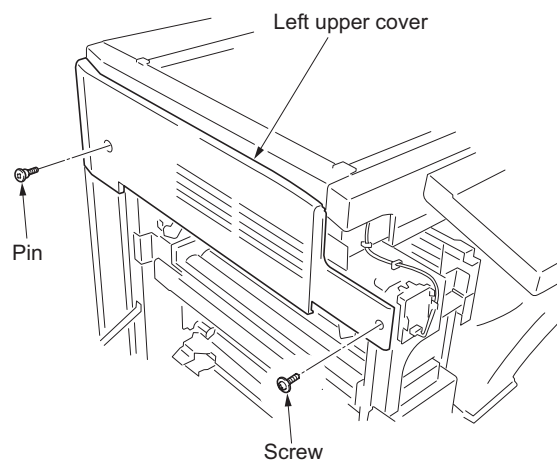
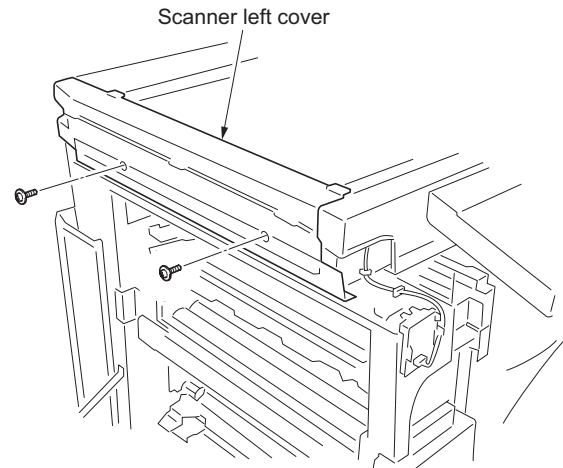


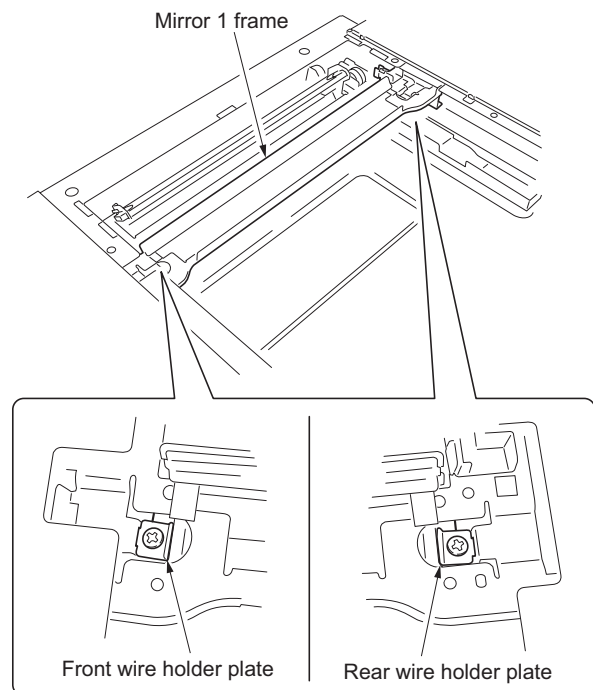
Figure 1-5-30

6. Remove two screws and remove the scanner left cover.



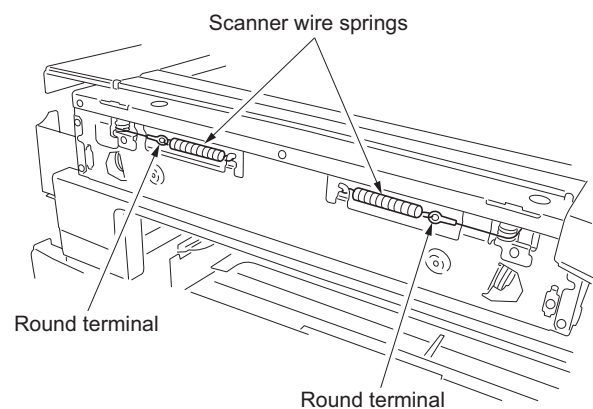
**Figure 1-5-31**

7. Remove each screw and then remove front and rear wire holder plates from mirror 1 frame.
8. Remove the mirror 1 frame.



**Figure 1-5-32**

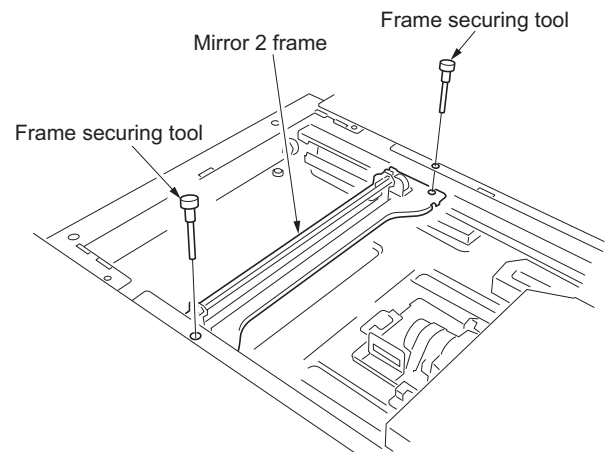
9. Remove the round terminals from the scanner wire springs on scanner unit left side.
10. Remove the scanner wire.



**Figure 1-5-33**

**Fitting the scanner wires**

11. Move the mirror 2 frame as shown in the figure and insert two frame securing tools into the positioning holes at the front and rear of the machine center to fix the mirror 2 frame in position.

**Figure 1-5-34**

12. Hook the round terminals onto the catches inside of the scanner unit. (1)
13. Loop the scanner wires around the outer grooves in the pulleys on the mirror 2 frame, winding from below to above. (2)
14. Loop the scanner wire around the groove in the scanner wire pulley at the scanner unit right, winding from above to below. (3)
15. Wind the scanner wires around the scanner wire drum five turns from the rear toward the hole in the drum. (4)
16. Insert the locating ball on the scanner wire into the hole in the scanner wire drum. (5)
17. Wind the scanner wires three turns from the inner toward the hole in the drum. (6)
18. Install the scanner wire stoppers to the scanner wire drum to fix the wires. (7)
19. Loop the scanner wire around the groove in the scanner wire pulley at the scanner unit left, winding from below to above. (8)
20. Loop the scanner wires around the inner grooves in the pulleys on the mirror 2 frame, winding from below to above. (9)
21. Hook the scanner wires around the scanner wire guides at the machine left. (10)
22. Hook the round terminal onto the scanner wire spring. (11)

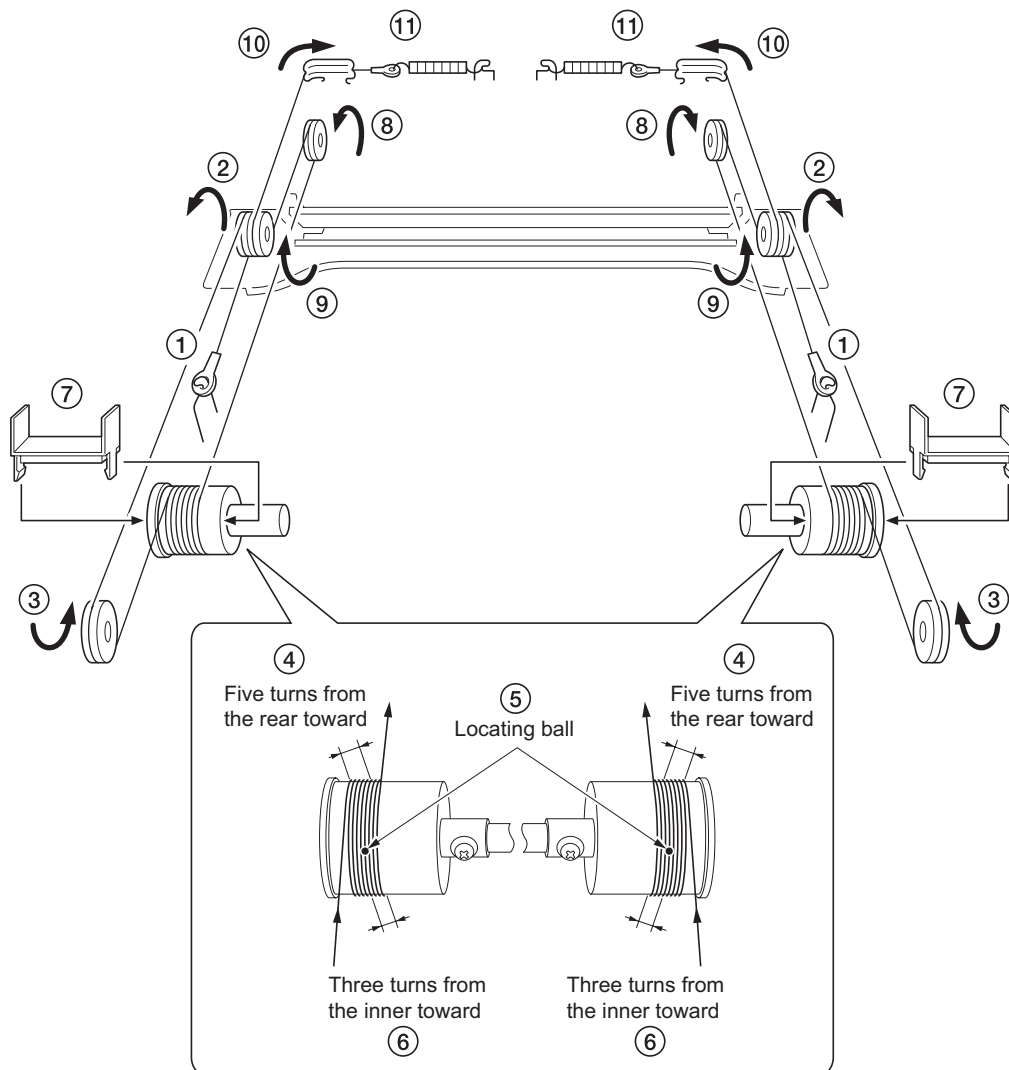
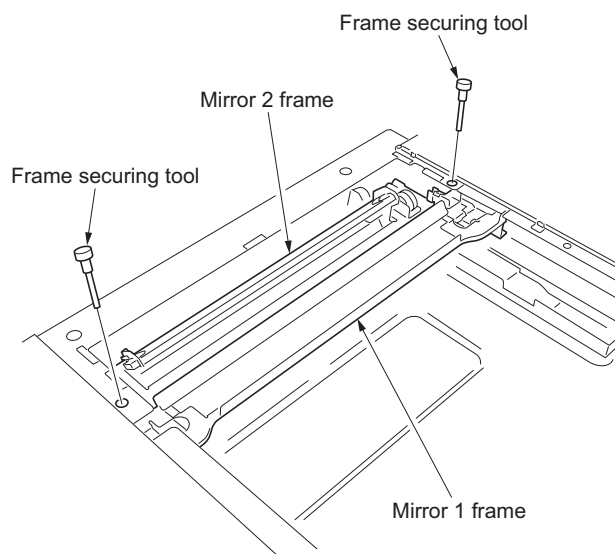


Figure 1-5-35

23. Remove the two scanner wire stoppers and frame securing tools.
24. Focusing on the locating ball of the wire drum, move aside the wires to inside.
25. Move the mirror 2 frame from side to side to correctly locate the wires in position.
26. Refit the mirror 1 frame.
27. Move the mirror 1 and 2 frames to the machine left, and insert the two frame securing tools into the positioning holes at the front and rear of the scanner unit to secure the frames in position.
28. Hold the wires and fix each front and rear wire holder plate to mirror 1 frame with the screw.
29. Remove the two frame securing tools.
30. Refit the exposure lamp.

**Figure 1-5-36**

### (3) Detaching and refitting the ISU (reference)

Follow the procedure below to replace the ISU.

#### Fitting requires the following tools

Two positions pins (P/N 1856812)

#### Procedure

##### Detaching the ISU

1. Remove the platen (see page 1-5-11).
2. Remove seven screws and then remove the ISU cover.

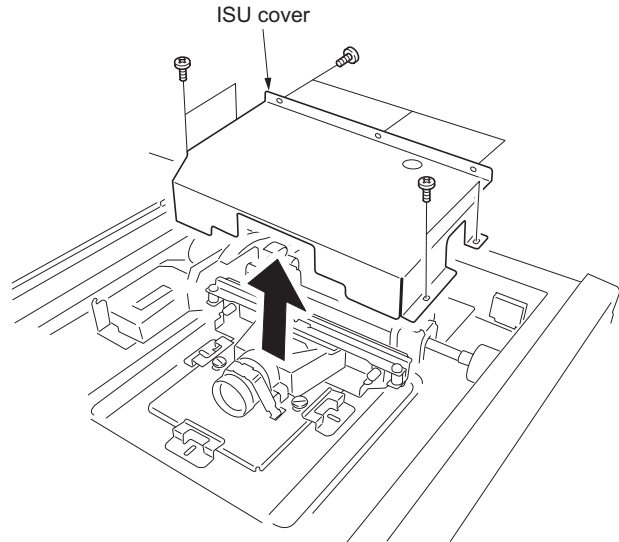


Figure 1-5-37

3. Remove three screws and two connectors, and then remove the ISU.
4. Replace the ISU.

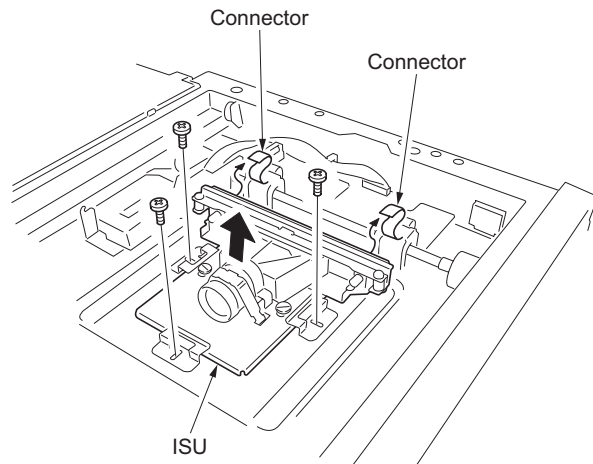
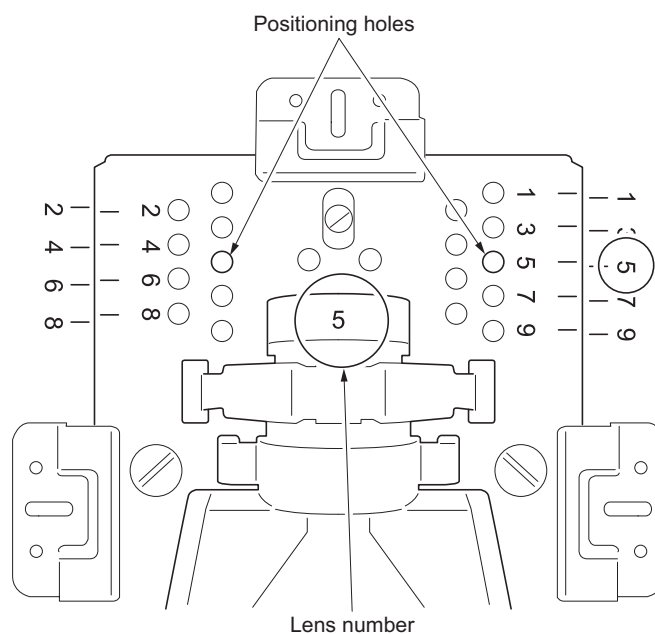
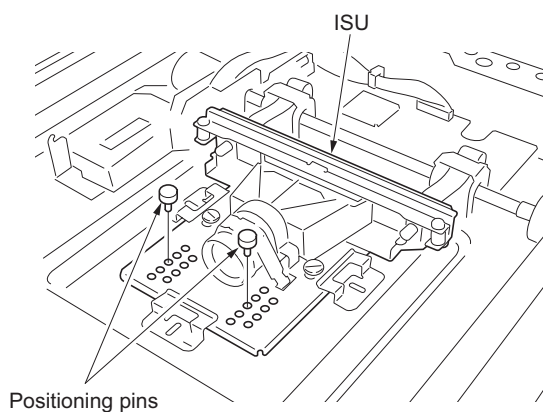


Figure 1-5-38

**Fitting the ISU**

5. Adjust the position of ISU to the frame hole of number and the same number which are recorded in the lens of ISU and then insert two positioning pins.  
Example: When a lens number is 5, move ISU so that the positioning hole of 5 of the number stamped in the scanner unit suit and insert two pins.
6. Remove two positioning pins after fixing ISU with three screws.
7. Refit two connectors and ISU cover.
8. Refit the platen.

**Figure 1-5-39**

#### (4) Adjusting the position of the ISU (reference)

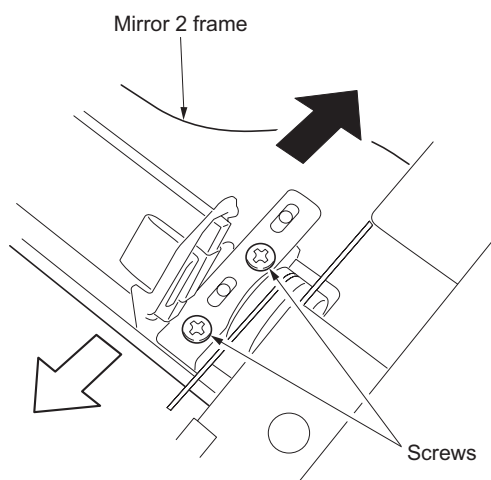
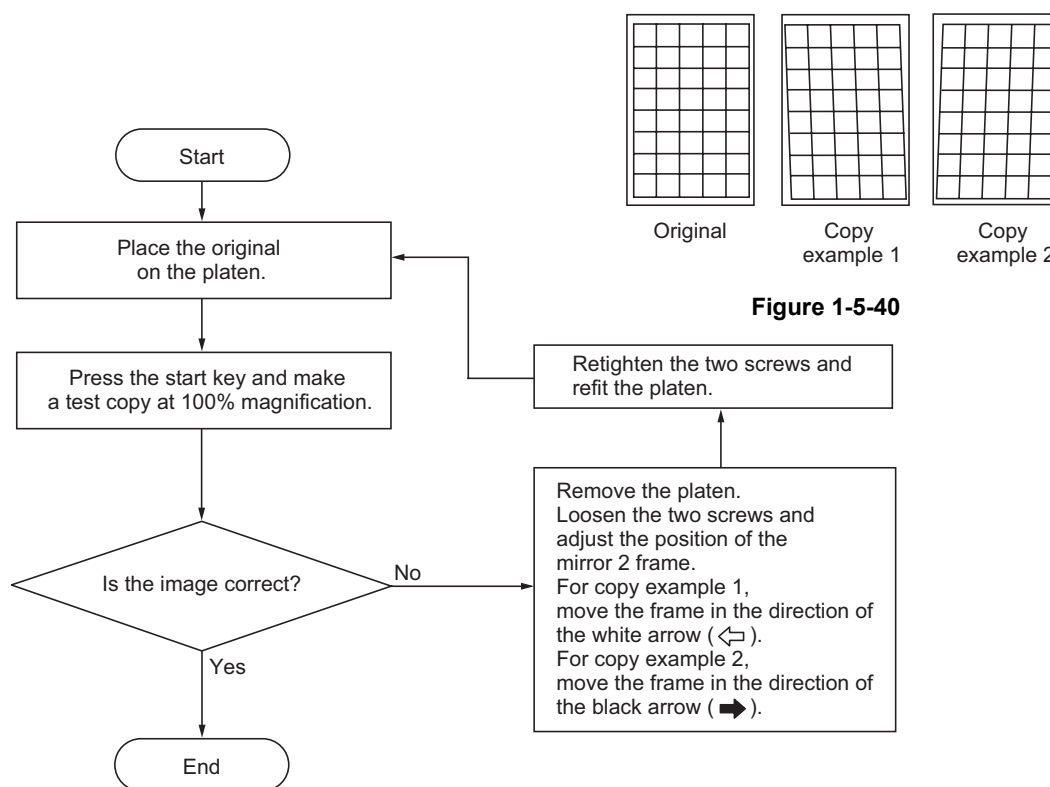
Perform the following adjustment if the leading and trailing edges of the copy image are laterally skewed (lateral squareness not obtained).

##### Caution:

Adjust the amount of slack in the paper at the registration roller first (see page 1-3-20). Check for the longitudinal squareness of the copy image, and if it is not obtained, perform the longitudinal squareness adjustment.

Before making the following adjustment, output a VTC-PG2 pattern in maintenance item U993 to use as the original for the adjustment.

##### Procedure



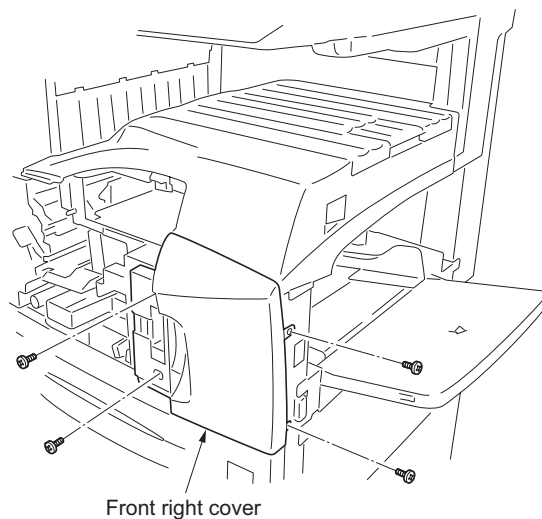
**Figure 1-5-41**

**(5) Detaching and refitting the laser scanner unit**

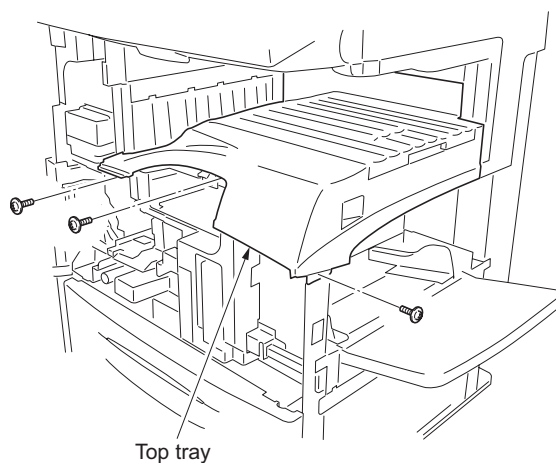
Take the following procedure when the laser scanner unit is to be replaced.

**Procedure**

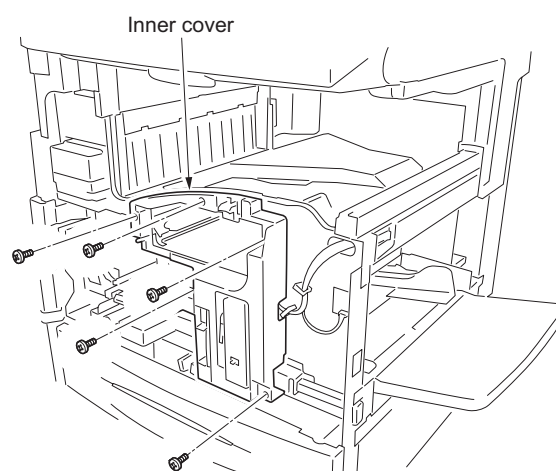
1. Remove the developing unit and drum unit (see pages 1-5-24 and 26).
2. Remove the right lower cover and front left cover (see pages 1-5-4 and 13).
3. Remove four screws and remove the front right cover.

**Figure 1-5-42**

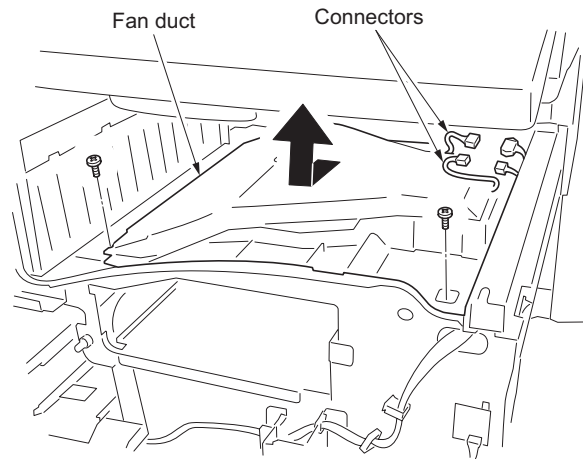
4. Remove three screws and remove the top tray.

**Figure 1-5-43**

5. Remove five screws and remove the inner cover.

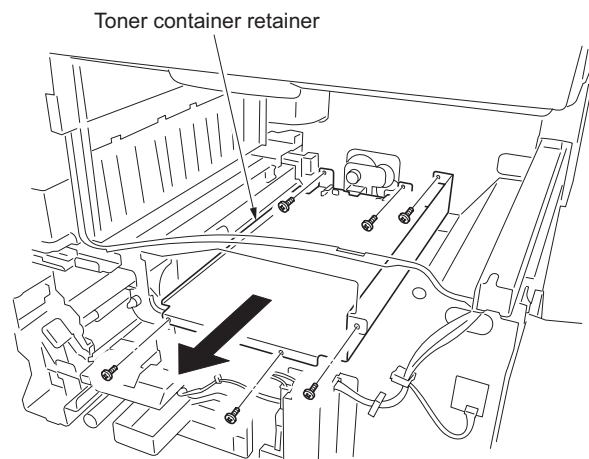
**Figure 1-5-44**

6. Remove two screws and two connectors, and then remove the fan duct.



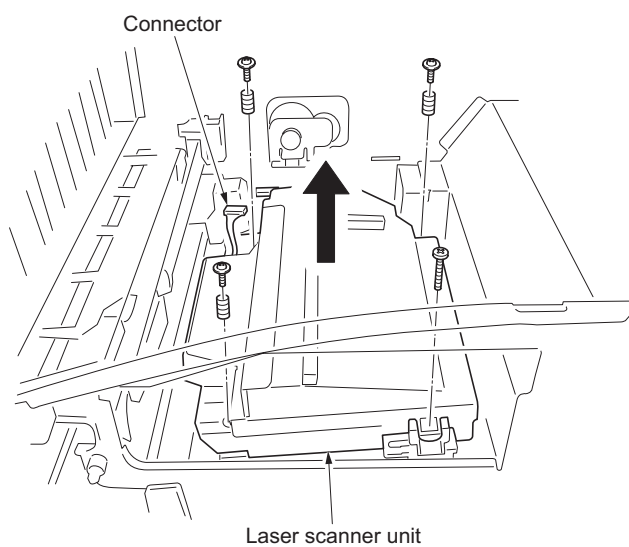
**Figure 1-5-45**

7. Remove six screws and remove the toner container retainer.



**Figure 1-5-46**

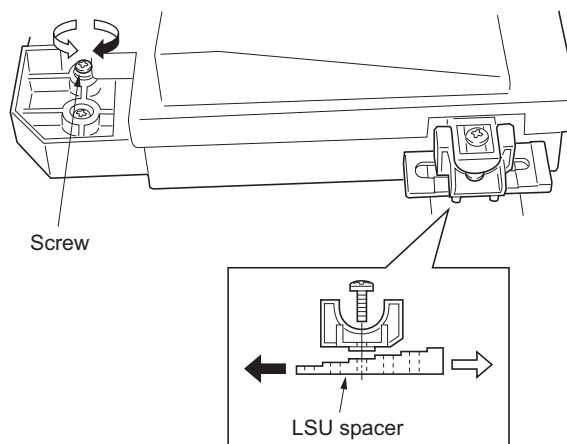
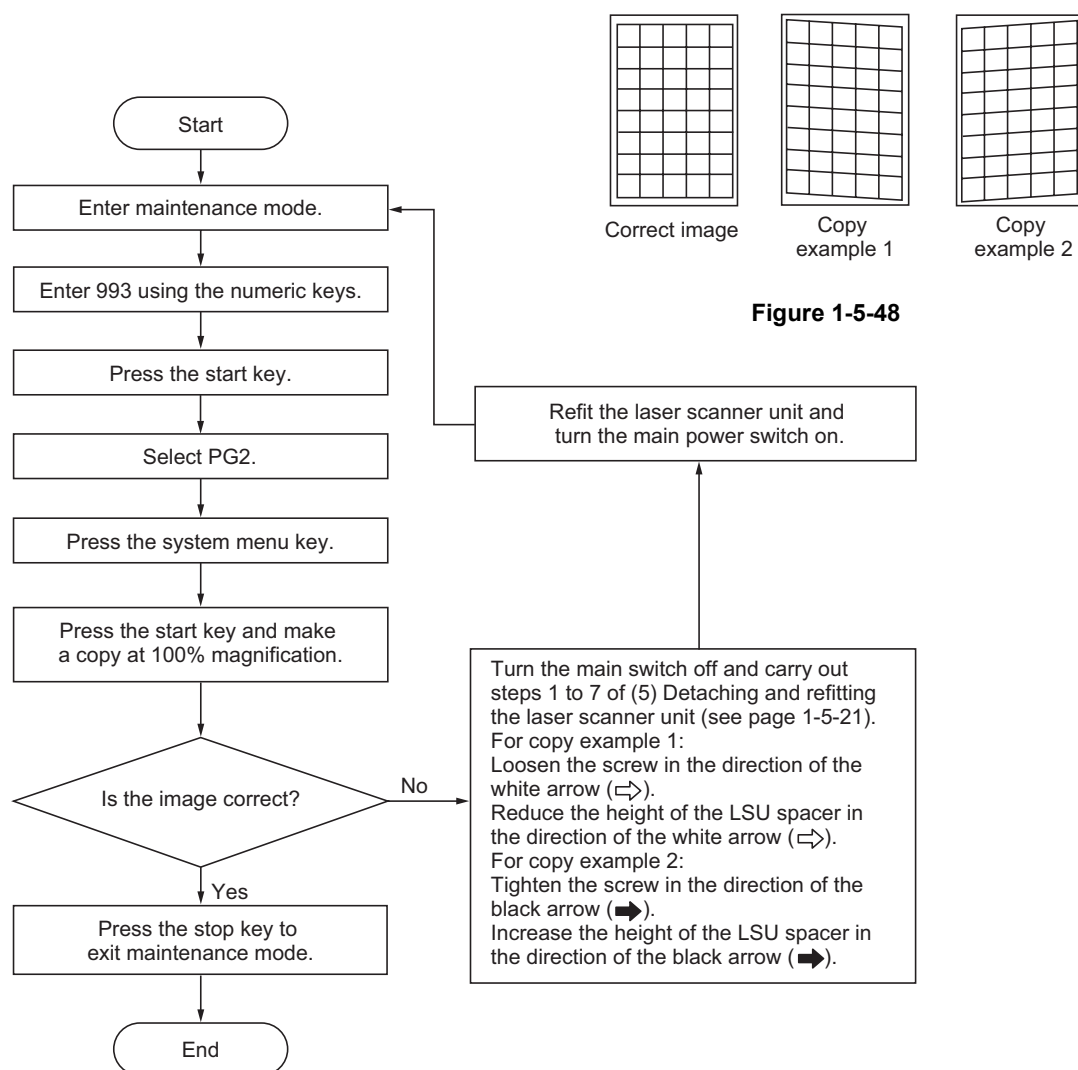
8. Remove four screws and the connector, and then remove the laser scanner unit.
9. Replace the laser scanner unit and install the unit.
10. Refit the toner container retainer, fan duct and inner cover.
11. Refit the top tray, front right cover, right lower cover and front left cover.
12. Refit the drum unit and the developing unit.



**Figure 1-5-47**

**(6) Adjusting the skew of the laser scanner unit (reference)**

Perform the following adjustment if the leading and trailing edges of the copy image are laterally skewed (lateral square-ness not obtained).

**Procedure****Figure 1-5-49**

## 1-5-4 Drum section

### (1) Detaching and refitting the drum unit

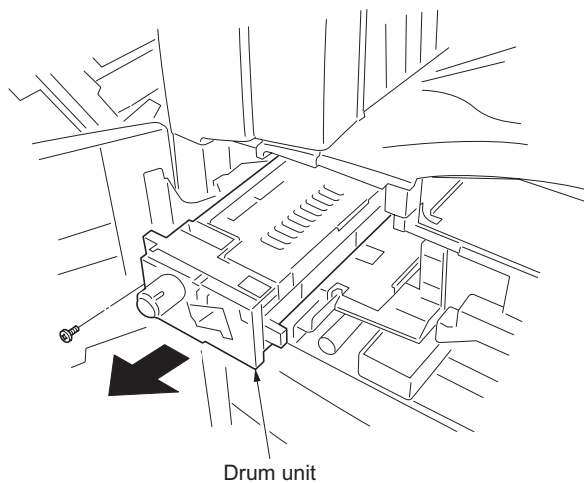
Follow the procedure below to replace the drum unit.

#### Cautions:

Avoid direct sunlight or strong light when detaching and refitting the drum unit.  
Never touch the drum surface when holding the drum unit.

#### Procedure

1. Remove the developing unit (see page 1-5-26).
2. Remove the main charger unit (see page 1-5-25).
3. Remove the screw and the drum unit.
4. Replace the drum unit and install the unit.
5. Perform maintenance mode U110 to clear the counter value (see page 1-3-39).



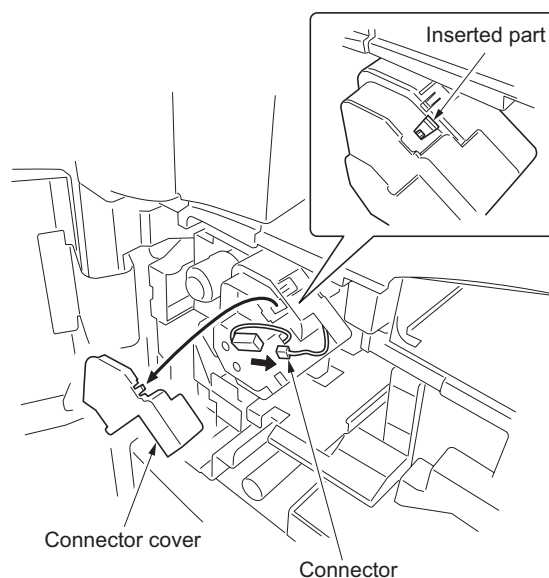
**Figure 1-5-50**

**(2) Detaching and refitting the main charger unit**

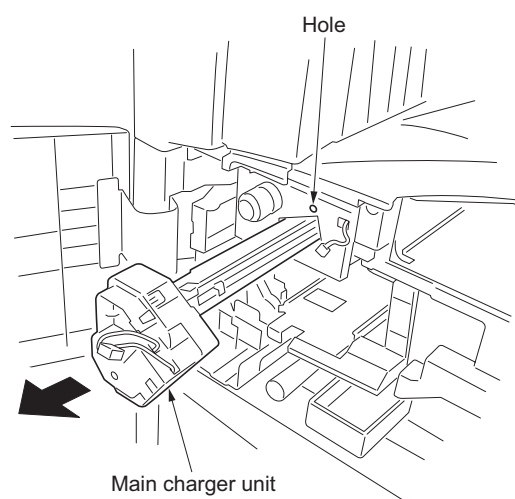
Follow the procedure below to replace the main charger unit.

**Procedure**

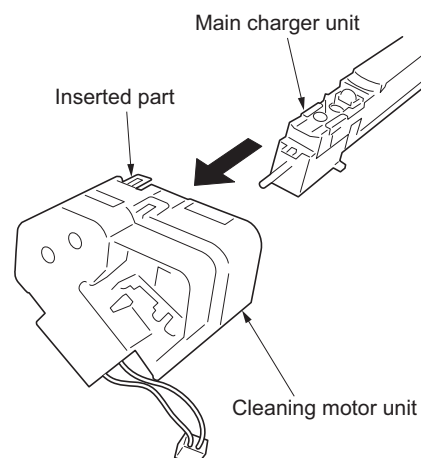
1. Remove the developing unit (see page 1-5-26).
2. Release the inserted part and remove the connector cover.
3. Remove the connector.

**Figure 1-5-51**

4. While pushing the hole with a sharp-pointed object, remove the main charger unit.

**Figure 1-5-52**

5. Release the inserted part and remove the cleaning motor unit from the main charger unit.
6. Replace the main charger unit.
7. Refit the cleaning motor unit to the main charger unit.
8. Install the main charger unit

**Figure 1-5-53**

## 1-5-5 Developing section

### (1) Detaching and refitting the developing unit

Follow the procedure below to replace the developing unit.

#### Procedure

1. Open the front cover.
2. Remove the toner container and waste toner box.
3. Remove the pin and turn the developing release lever in the direction of the arrow.

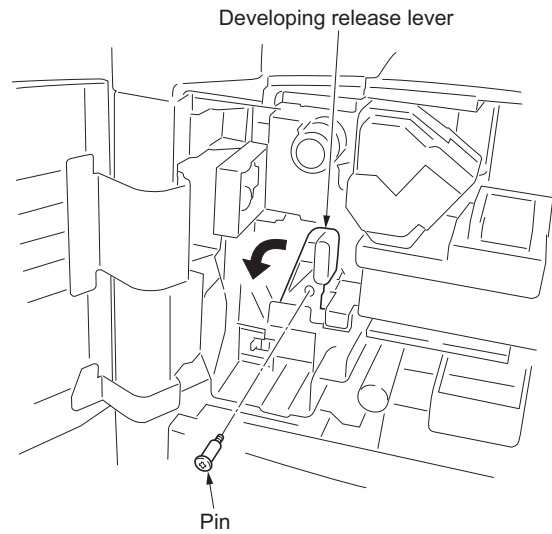


Figure 1-5-54

4. Remove the developing unit.
5. Replace the developing unit and install the unit.
6. Perform maintenance mode U157 and U158 to clear the counter value (see page 1-3-41, 42).

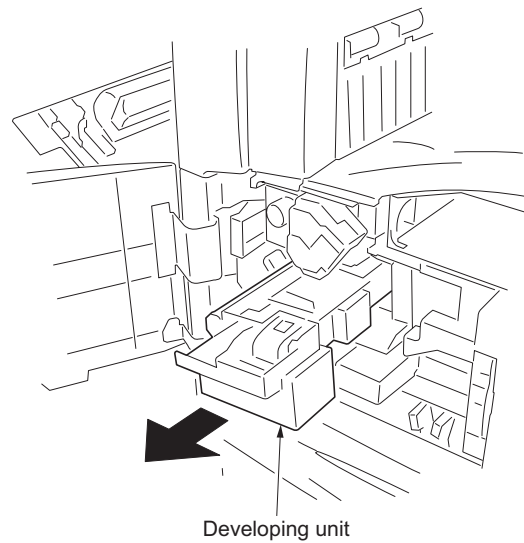


Figure 1-5-55

## 1-5-6 Transfer section

### (1) Detaching and refitting the transfer roller unit

Follow the procedure below to replace the transfer roller unit.

#### Procedure

1. Open the left cover 1.
2. While holding down the projection, slide the transfer roller unit toward the front to remove it.
3. Replace the transfer roller unit and install the unit.

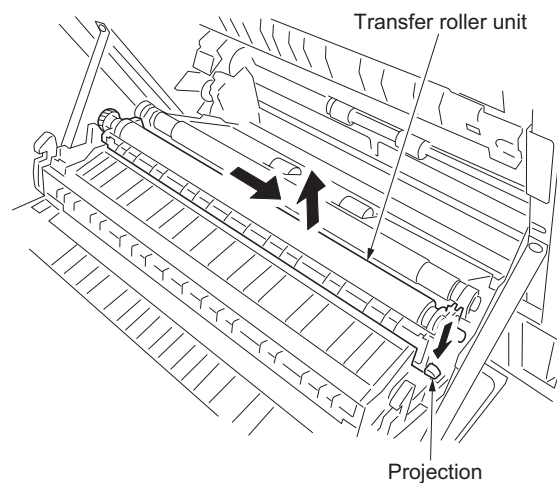


Figure 1-5-56

## 1-5-7 Fuser section

### (1) Detaching and refitting the fuser unit

Follow the procedure below to check or replace the fuser unit.

#### Procedure

1. Remove the clip holder.
2. Open the front cover and left cover 1.
3. Remove four screws and remove front left cover.

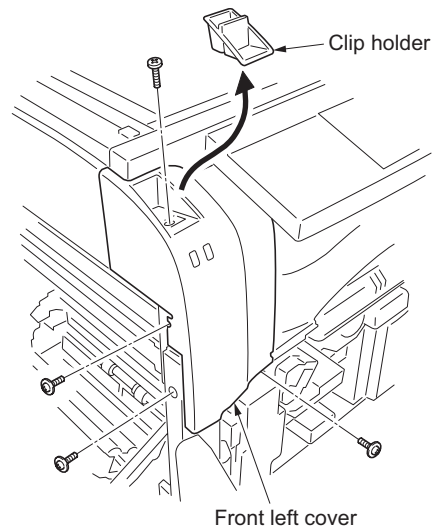


Figure 1-5-57

4. Remove the screw and remove the fuser unit.
5. Check or replace the fuser unit and install the unit.
6. Perform maintenance mode U167 to clear the counter value (see page 1-3-42).

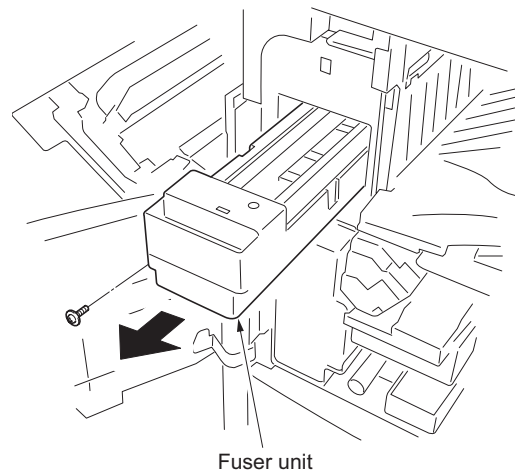


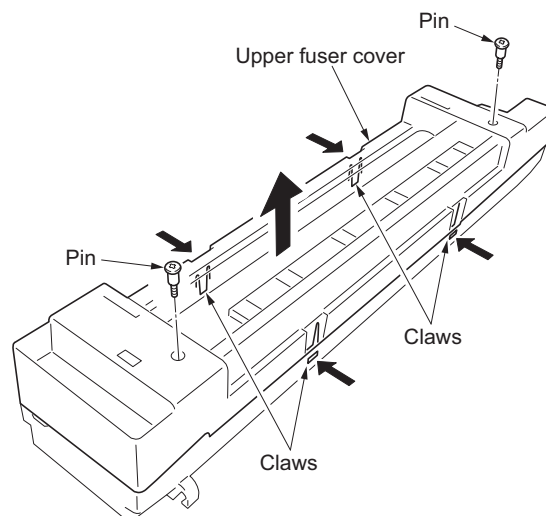
Figure 1-5-58

**(2) Detaching and refitting the heat roller separation claws**

Follow the procedure below to replace the heat roller separation claws.

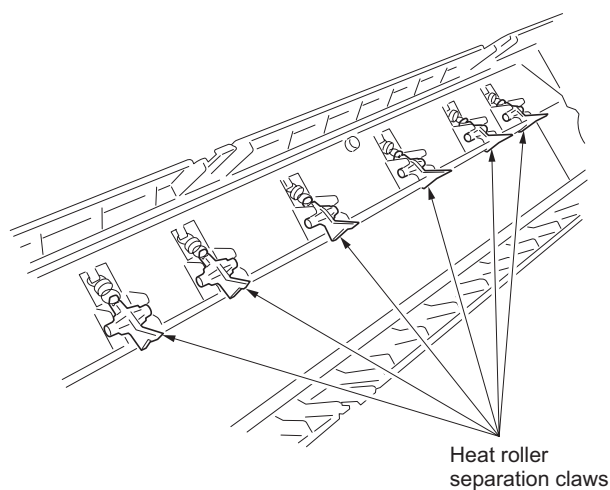
**Procedure**

1. Remove the fuser unit. (see page 1-5-28)
2. Remove the two screws and remove the upper fuser cover while holding the four claws.



**Figure 1-5-59**

3. Remove the heat roller separation claws from the upper fuser cover.
4. Replace the heat roller separation claws and install the claws to upper fuser cover.
5. Refit the upper fuser cover.
6. Refit the fuser unit.



**Figure 1-5-60**

### (3) Detaching and refitting the press roller

Follow the procedure below to replace the press roller.

#### Procedure

1. Remove the fuser unit (see page 1-5-28).
2. Remove the upper fuser cover (see page 1-5-29).
3. Remove the front and rear press springs.

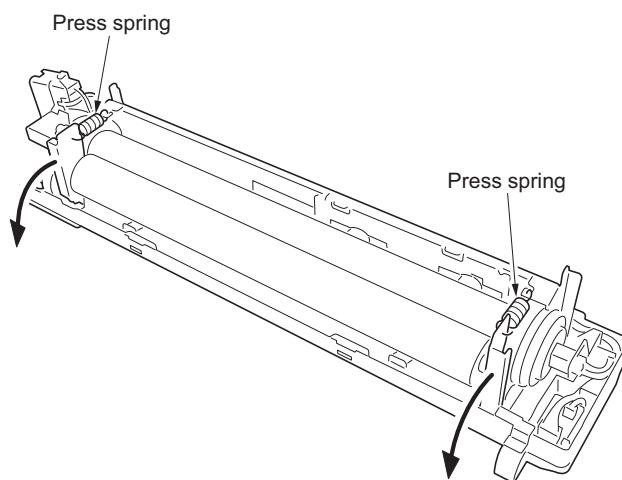


Figure 1-5-61

4. Remove the press roller from the fuser unit.
5. Replace the press roller and install the roller to fuser unit.
6. Refit the upper fuser cover.
7. Refit the fuser unit.

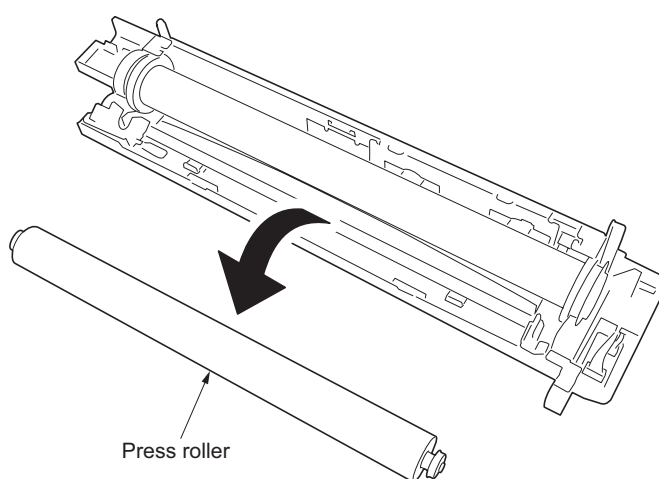


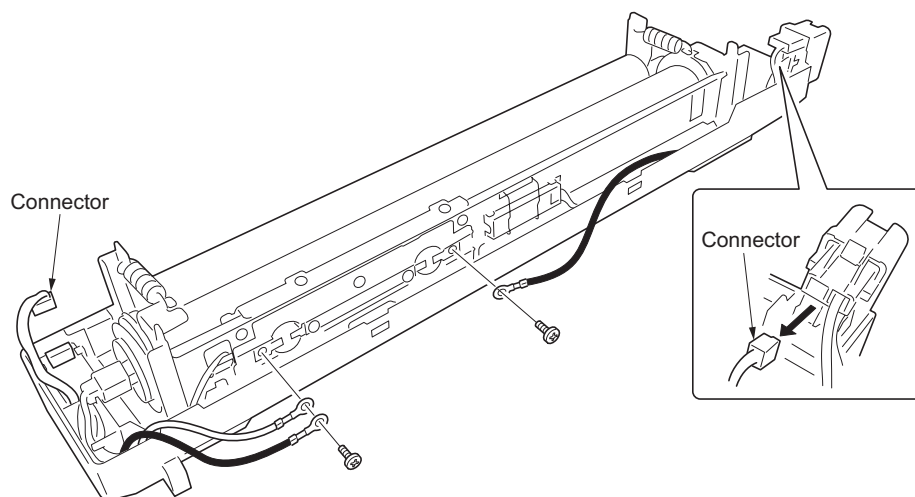
Figure 1-5-62

**(4) Detaching and refitting the fuser heater**

Follow the procedure below to replace the fuser heater.

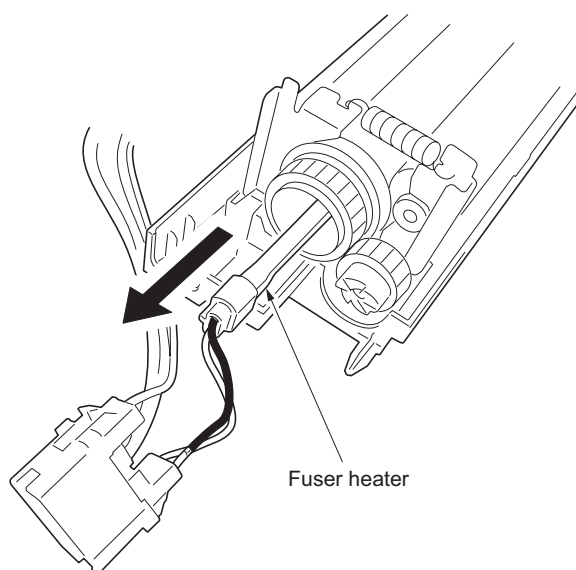
**Procedure**

1. Remove the fuser unit (see page 1-5-28).
2. Remove the upper fuser cover (see page 1-5-29).
3. Remove two screws and two connectors.



**Figure 1-5-63**

4. Pull out the fuser heater from the fuser unit.



**Figure 1-5-64**

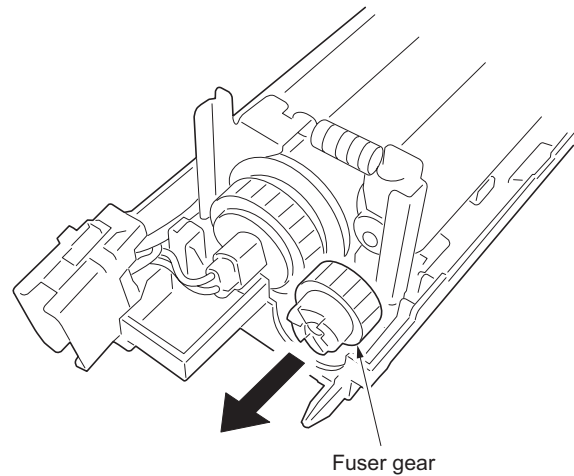
5. Replace the fuser heater and install the heater to fuser unit.
6. Refit the upper fuser cover.
7. Refit the fuser unit.

**(5) Detaching and refitting the heat roller**

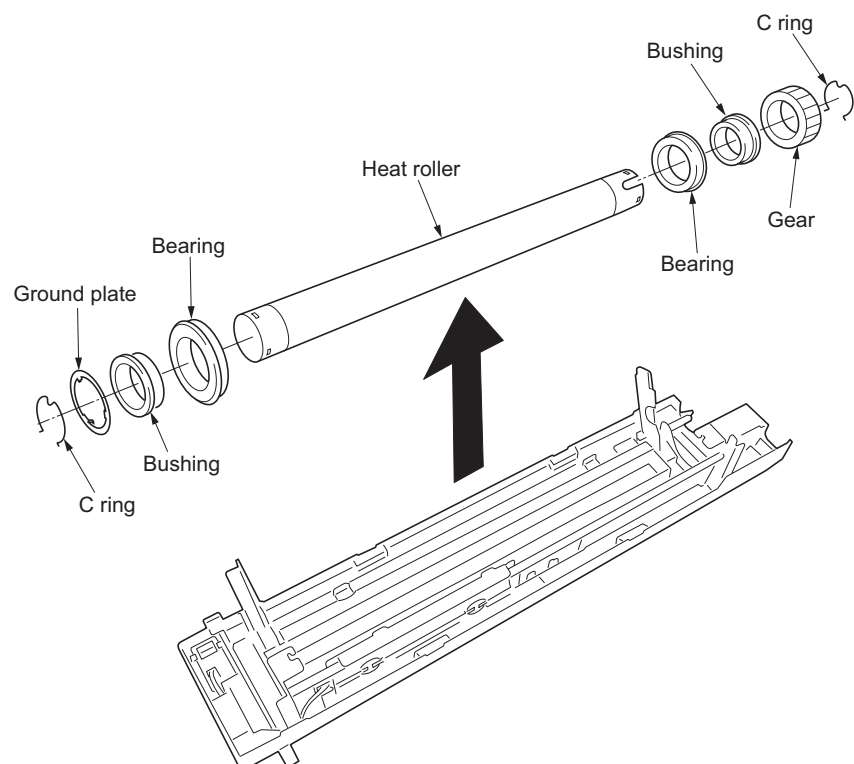
Follow the procedure below to replace the heat roller.

**Procedure**

1. Remove the fuser unit (see page 1-5-28).
2. Remove the upper fuser cover (see page 1-5-29).
3. Remove the press roller and fuser heater (see page 1-5-30 and 31).
4. Remove the fuser gear.

**Figure 1-5-65**

5. Remove the heat roller from the fuser unit. Remove the C ring, gear, bearing and bushing on the rear side of the heat roller and remove the C ring, ground plate, bearing and bushing on the front side.
6. Replace the heat roller and install the roller to fuser unit.

**Figure 1-5-66**

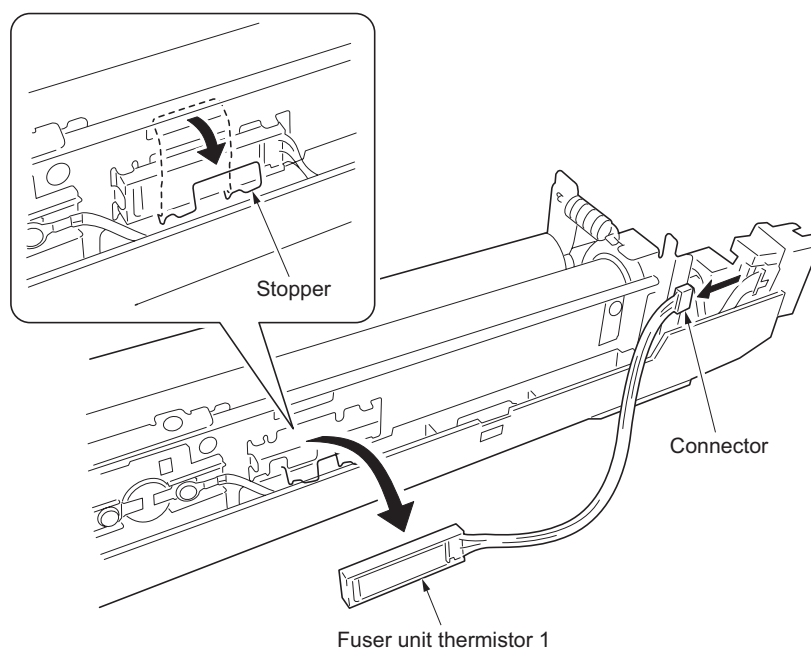
7. Refit the fuser gear.
8. Refit the fuser heater, press roller and upper fuser cover.
9. Refit the fuser unit.

**(6) Detaching and refitting the fuser unit thermistor 1 and 2**

Follow the procedure below to replace the fuser unit thermistor 1 and 2.

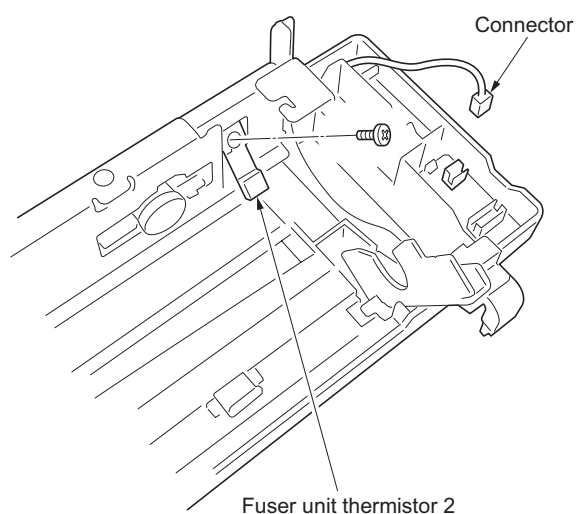
**Procedure**

1. Remove the fuser unit (see page 1-5-28).
2. Remove the upper fuser cover (see page 1-5-29).
3. Release the stopper of the fuser unit thermistor 1.
4. Remove the connector and remove the fuser unit thermistor 1.
5. Replace the fuser unit thermistor 1 and install the thermistor to fuser unit.



**Figure 1-5-67**

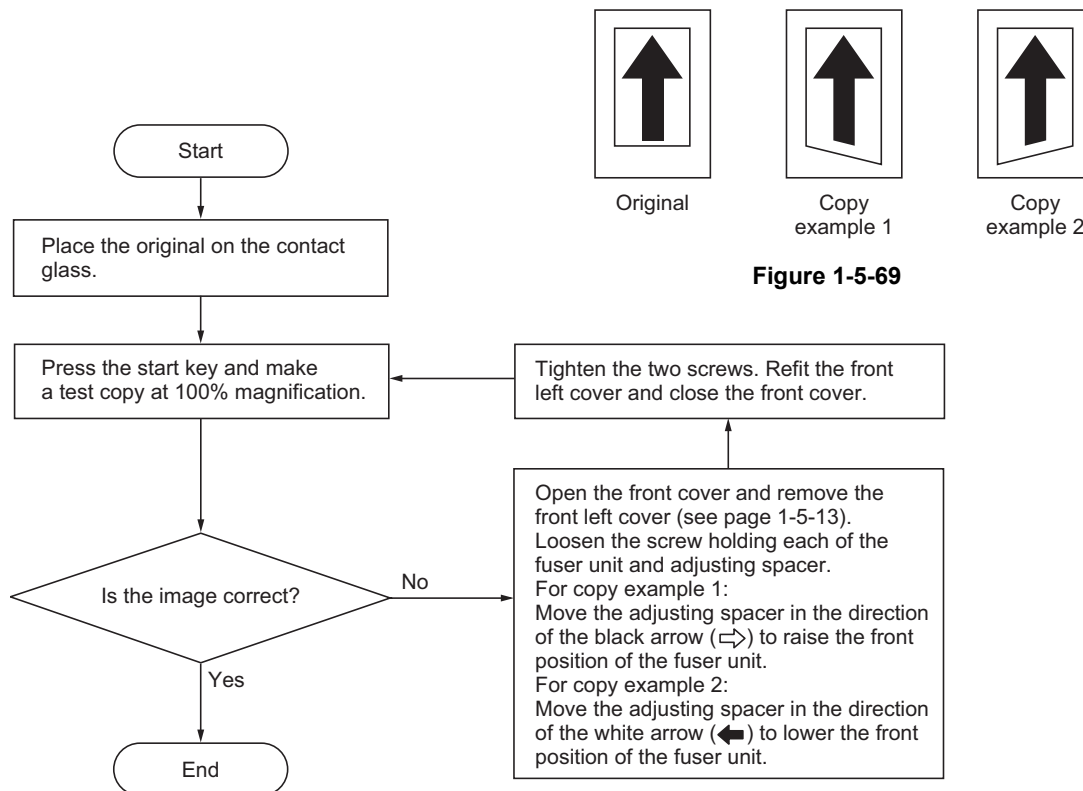
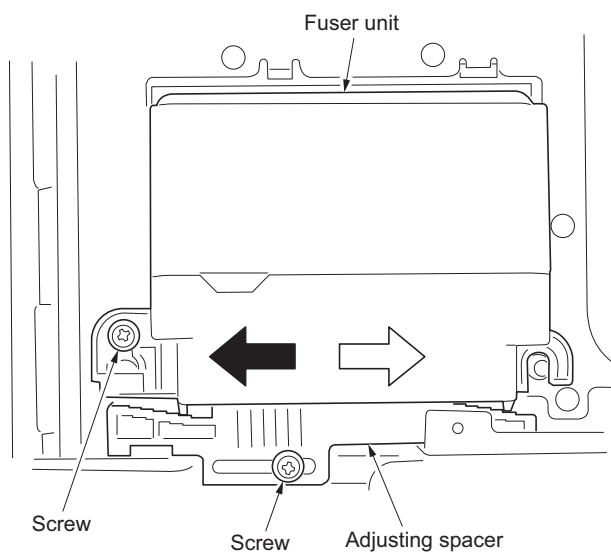
6. Remove the press roller and fuser heater (see page 1-5-30 and 31).
7. Remove the heat roller (see page 1-5-32).
8. Remove the screw and the connector, and then remove the fuser unit thermistor 2.
9. Replace the fuser unit thermistor 2 and install the thermistor to fuser unit.
10. Refit the heat roller, fuser heater, press roller and upper fuser cover.
11. Refit the fuser unit.



**Figure 1-5-68**

**(7) Adjusting front position of the fuser unit (adjusting lateral squareness)**

Follow the procedure below if the drum is not parallel to the fuser unit and therefore paper is not fed straight to the fuser section and the trailing edge of image on either the front or rear side becomes longer.

**Procedure****Figure 1-5-69****Figure 1-5-70**

## 1-5-8 Others

### (1) Detaching and refitting the ozone filter 1 and 2

Follow the procedure below to replace the ozone filter 1 and 2

#### Procedure

1. Remove the ozone filter 1 from the machine left side.

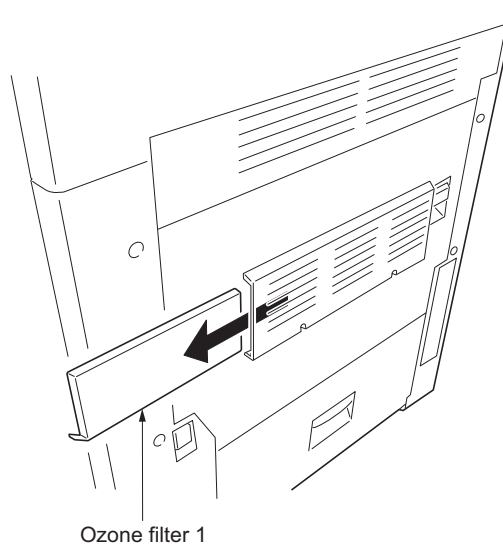


Figure 1-5-71

2. Open the filter cover of the machine rear side and remove the ozone filter 2.
3. Replace the ozone filter 1 and 2 and install the filter.

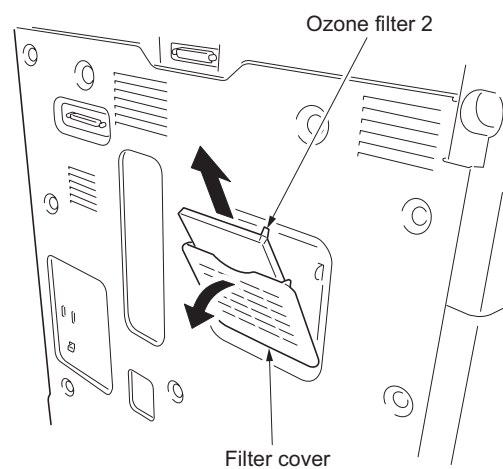


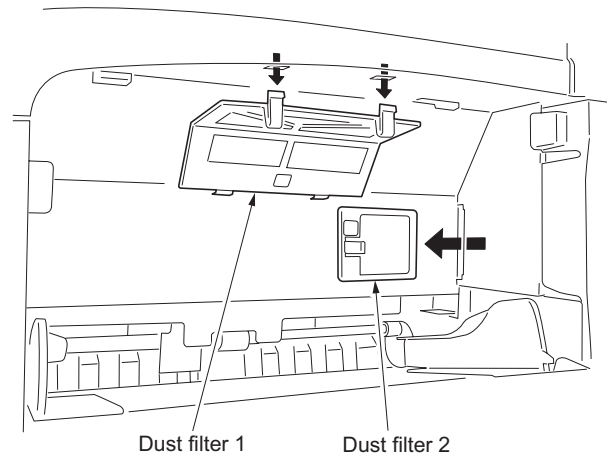
Figure 1-5-72

## (2) Detaching and refitting the dust filter 1 and 2

Follow the procedure below to replace the dust filter 1 and 2

### Procedure

1. Open the MP tray.
2. Remove the dust filter 1 and 2 from the machine.
3. Replace the dust filter 1 and 2 and install the filter.



**Figure 1-5-73**

## 1-6-1 Upgrading the firmware

Follow the procedure below to upgrade the firmware of main PWB, engine PWB, scanner PWB and MMI.

### Firmware upgrading requires the following tools:

Compact Flash (Products manufactured by SANDISK are recommended.) or USB memory

### NOTE

When writing data to a new Compact Flash from a computer, be sure to format it in advance.

### Procedure

1. Press the Power key on the operation panel to off. Make sure that the Power indicator and the Memory indicator are off before turning off the main power switch. And then unplug the power cable from the wall outlet.
2. Insert Compact Flash or USB memory in a notch hole of the machine.  
The Compact Flash must be inserted into the machine with its rear side facing up.
3. Insert the power plug and turn the main power switch on. Upgrading firmware starts for 9 minutes.

#### Caution:

Never turn the main power switch off during upgrading.

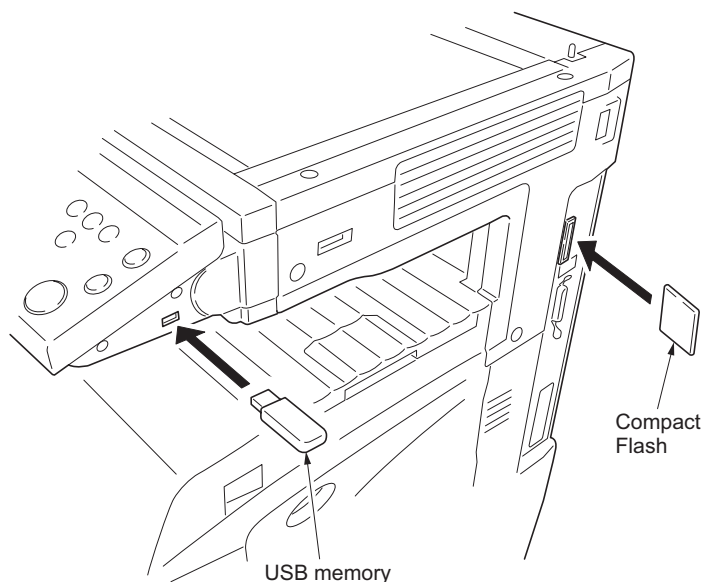


Figure 1-6-1

4. [Completed] is displayed on the touch panel when upgrading is complete.
5. Press the Power key on the operation panel to off. Make sure that the Power indicator and the Memory indicator are off before turning off the main power switch. And then unplug the power cable from the wall outlet.
6. Remove Compact Flash or USB memory from the machine.
7. Insert the power plug and turn the main power switch on.

### 1-6-2 Adjustment-free variable resistors (VR)

The variable resistors listed below are set at the factory prior to shipping and cannot be adjusted in the field.  
High voltage PWB: VR2, VR42, VR201, VR204

### 1-6-3 Remarks on main PWB replacement

When replacing the main PWB, remove EEPROM from the main PWB that has been removed and then reattach it to the new main PWB.

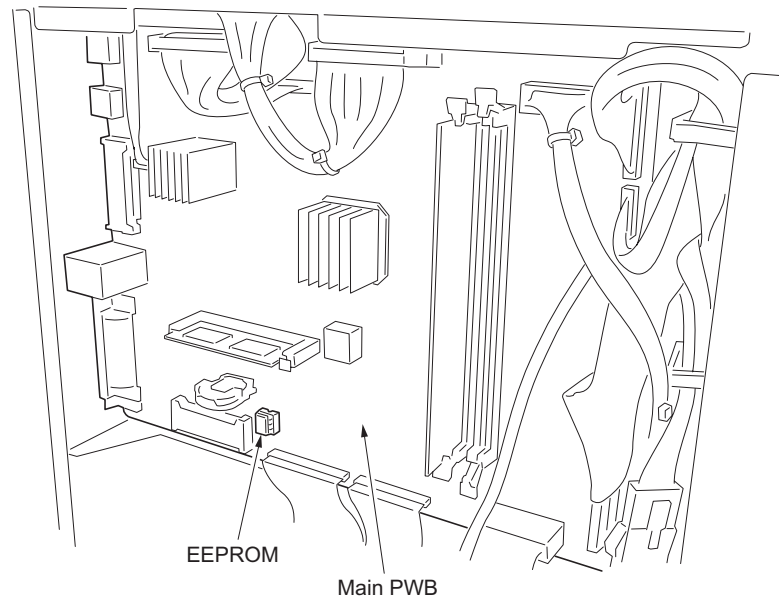


Figure 1-6-2

### 1-6-4 Remarks on scanner PWB replacement

When replacing the scanner PWB, remove the EEPROM from the scanner PWB that has been removed and then reattach it to the new scanner PWB.

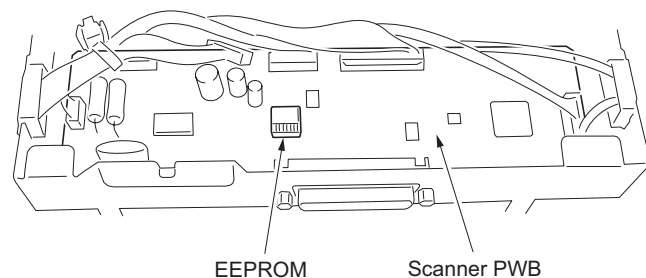
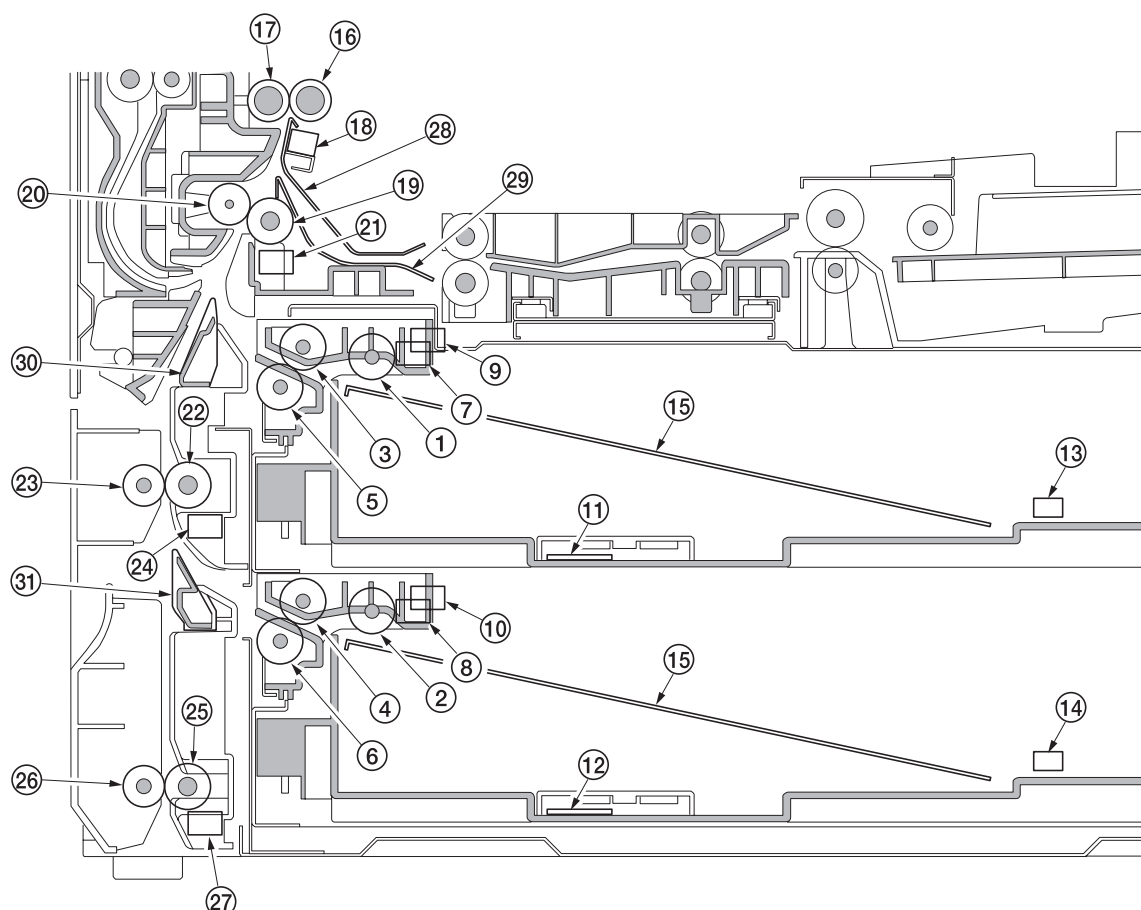


Figure 1-6-3

## 2-1-1 Paper feed section

The paper feed section consists of the primary feed and secondary feed subsections. Primary feed conveys paper from the cassettes 1, 2 or MP tray to the left and right registration rollers, at which point secondary feed takes place and the paper travels to the transfer section in sync with the printing timing.

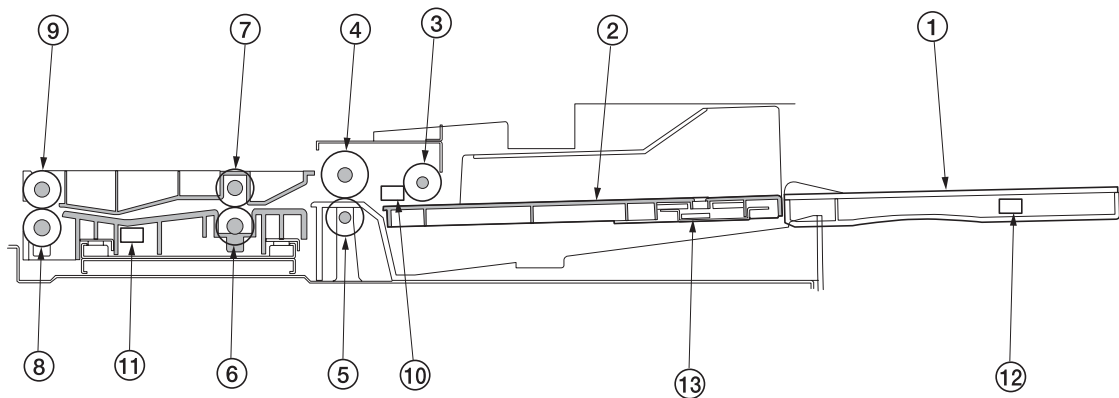
Each cassette consists of a lift driven by the lift motor and other components. Each cassette can hold up to 500 sheets of paper. Paper is fed from the cassette by the rotation of the forwarding pulley and paper feed pulley. The separation pulley prevents multiple sheets from being fed at one time, via the torque limiter.



**Figure 2-1-1 Paper feed from the cassettes 1 and 2**

- |   |                                       |
|---|---------------------------------------|
| (1) Upper forwarding pulley             | (17) Left registration roller         |
| (2) Lower forwarding pulley             | (18) Registration switch (RSW)        |
| (3) Upper paper feed pulley             | (19) Feed roller 1                    |
| (4) Lower paper feed pulley             | (20) Feed pulley                      |
| (5) Upper separation pulley             | (21) Feed switch 1 (FSW1)             |
| (6) Lower separation pulley             | (22) Feed roller 2                    |
| (7) Upper paper switch (PSW-U)          | (23) Feed pulley                      |
| (8) Lower paper switch (PSW-L)          | (24) Feed switch 2 (FSW2)             |
| (9) Upper lift limit switch (LICSW-U)   | (25) Feed roller 3                    |
| (10) Lower lift limit switch (LICSW-L)  | (26) Feed pulley                      |
| (11) Upper paper width switch (PWSW-U)  | (27) Feed switch 3 (FSW3)             |
| (12) Lower paper width switch (PWSW-L)  | (28) Front registration guide         |
| (13) Upper paper length switch (PLSW-U) | (29) Paper conveying guide            |
| (14) Lower paper length switch (PLSW-L) | (30) Vertical paper conveying guide 1 |
| (15) Cassette lift                      | (31) Vertical paper conveying guide 2 |
| (16) Right registration roller          |                                       |

The MP tray can hold up to 200 sheets of paper at one time. Paper is fed from the MP tray by the rotation of the MP forwarding pulley and MP paper feed pulley. Also during paper feed, the MP separation pulley prevents multiple sheets from being fed at one time by the torque limiter.



**Figure 2-1-2 Paper feed from the MP tray**

- |                          |                                      |
|--------------------------|--------------------------------------|
| (1) MP tray              | (9) MP feed roller 2                 |
| (2) MP lift guide        | (10) MP paper switch (MPPSW)         |
| (3) MP forwarding pulley | (11) MP feed switch (MPFSW)          |
| (4) MP paper feed pulley | (12) MP paper length switch (MPPLSW) |
| (5) MP separation pulley | (13) MP paper width switch (MPPWSW)  |
| (6) MP feed pulley       |                                      |
| (7) MP feed roller 1     |                                      |
| (8) MP feed pulley       |                                      |



2-1-2 Main charging section

The main charging section consists of the main charger assembly, drum and so on. The drum is electrically charged uniformly by means of a grid to form a latent image on the surface.

The main charger unit charges the drum so that a latent image is formed on the surface, the shield grid ensuring the charge is applied uniformly.

In addition, the main charger unit is equipped with the main charger cleaning motor, and it is cleaning automatically.

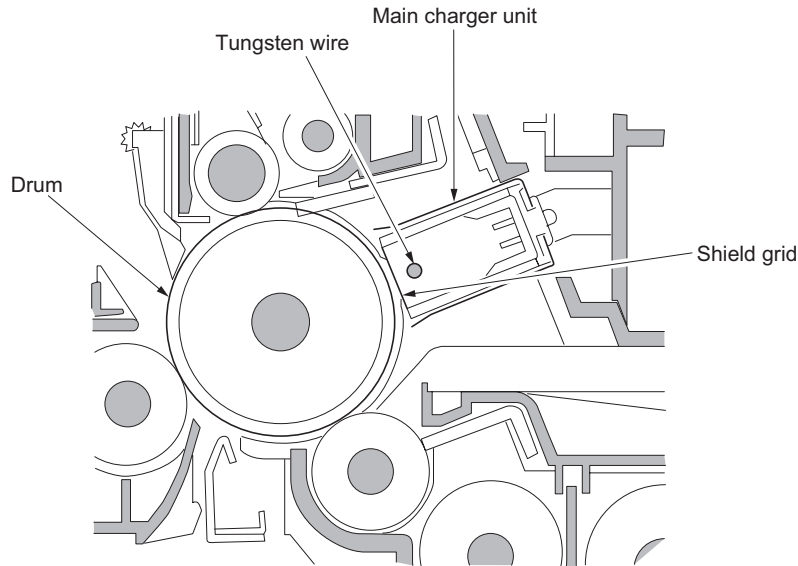


Figure 2-1-5 Main charging section

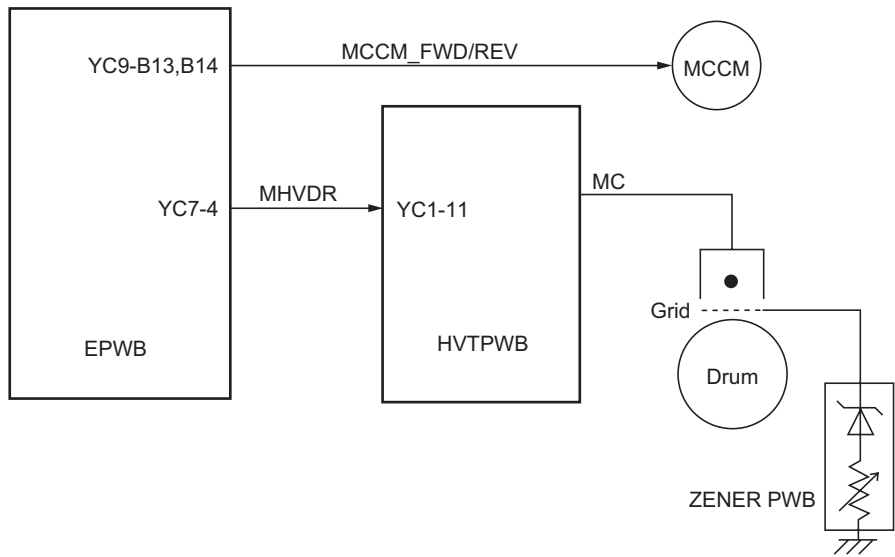
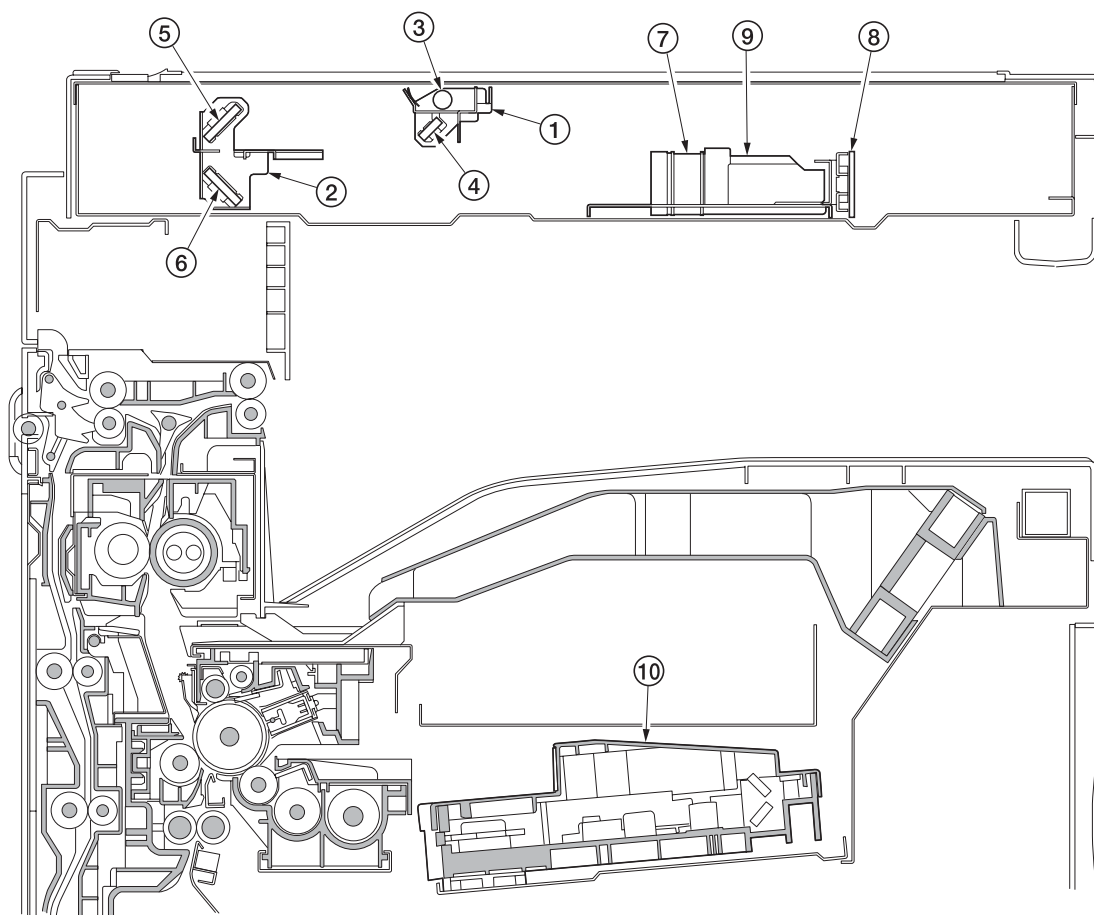


Figure 2-1-6 Main charging section block diagram

### 2-1-3 Optical section

The optical section consists of the scanner, mirror frame and image scanning unit for scanning and the laser scanner unit for printing.



**Figure 2-1-7 Optical section**

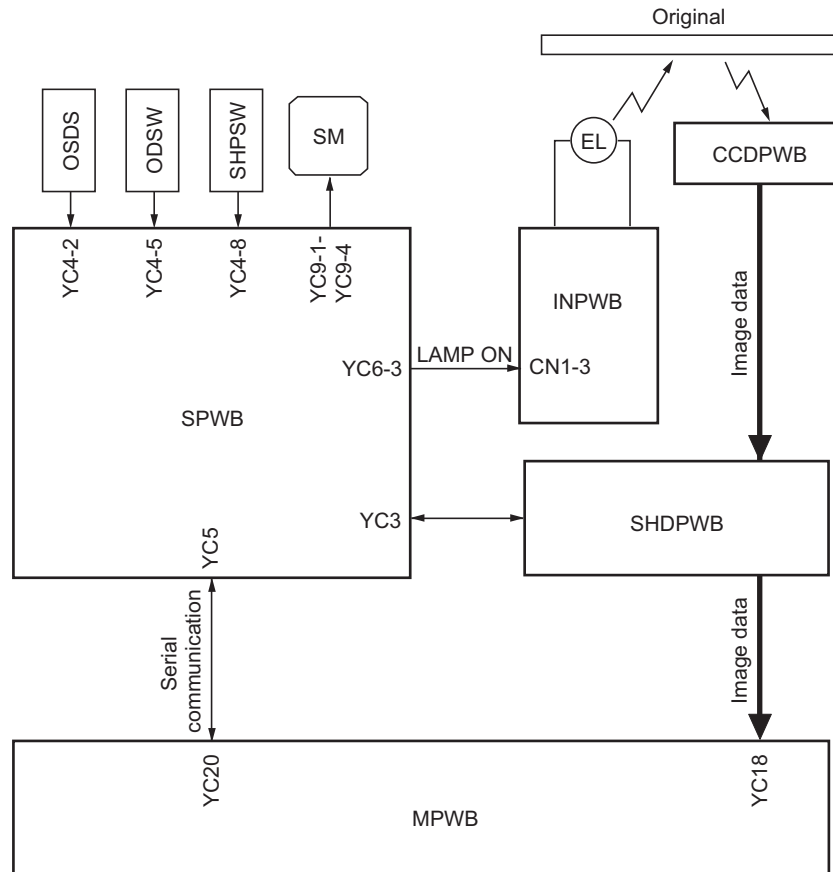
- (1) Mirror 1 frame
- (2) Mirror 2 frame
- (3) Exposure lamp (EL)
- (4) Mirror 1
- (5) Mirror 2
- (6) Mirror 3
- (7) Lens
- (8) CCD PWB (CCDPWB)
- (9) Image scanning unit
- (10) Laser scanner unit (LSU)

**(1) Original scanning**

The original image is illuminated by the exposure lamp (EL) and scanned by the CCD PWB (CCDPWB) in the image scanning unit via the three mirrors, the reflected light being converted to an electrical signal.

The scanner and mirror frames travel to scan on the optical rails on the front and rear of the machine to scan from side to side. The speed of the mirror frames is half the speed of the scanner.

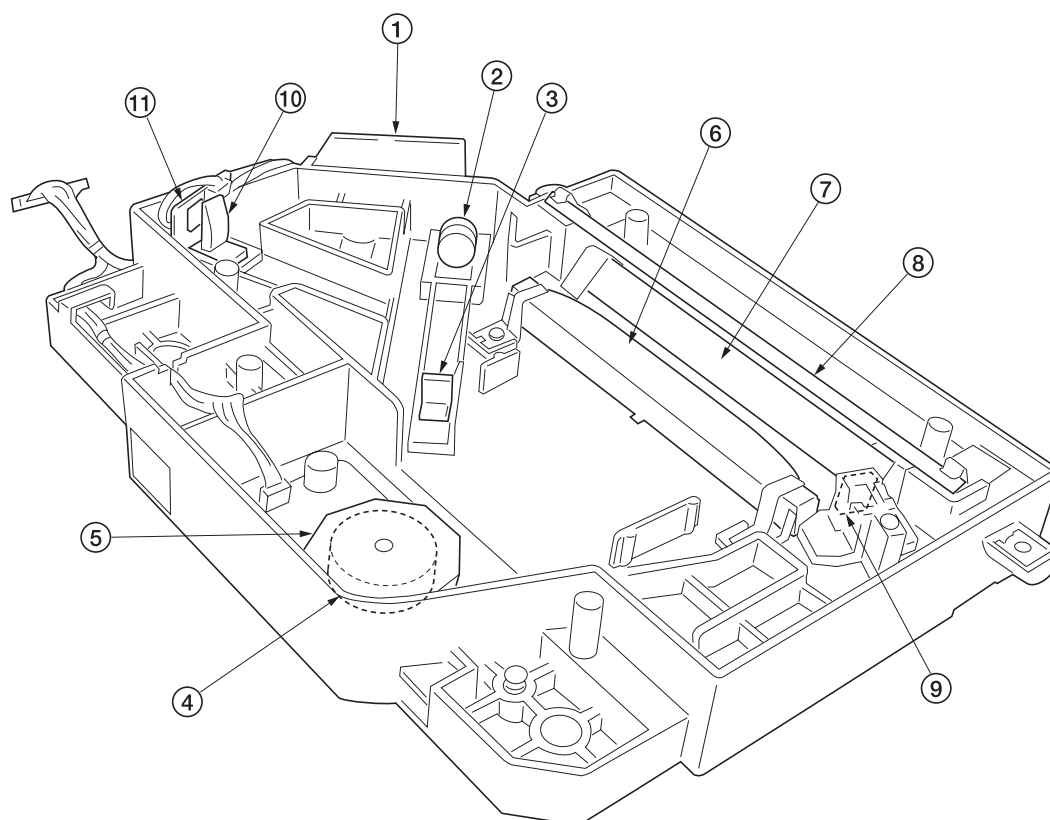
When the DP is used, the scanner and mirror frames stop at the DP original scanning position to start scanning.



**Figure 2-1-8 Optional section block diagram**

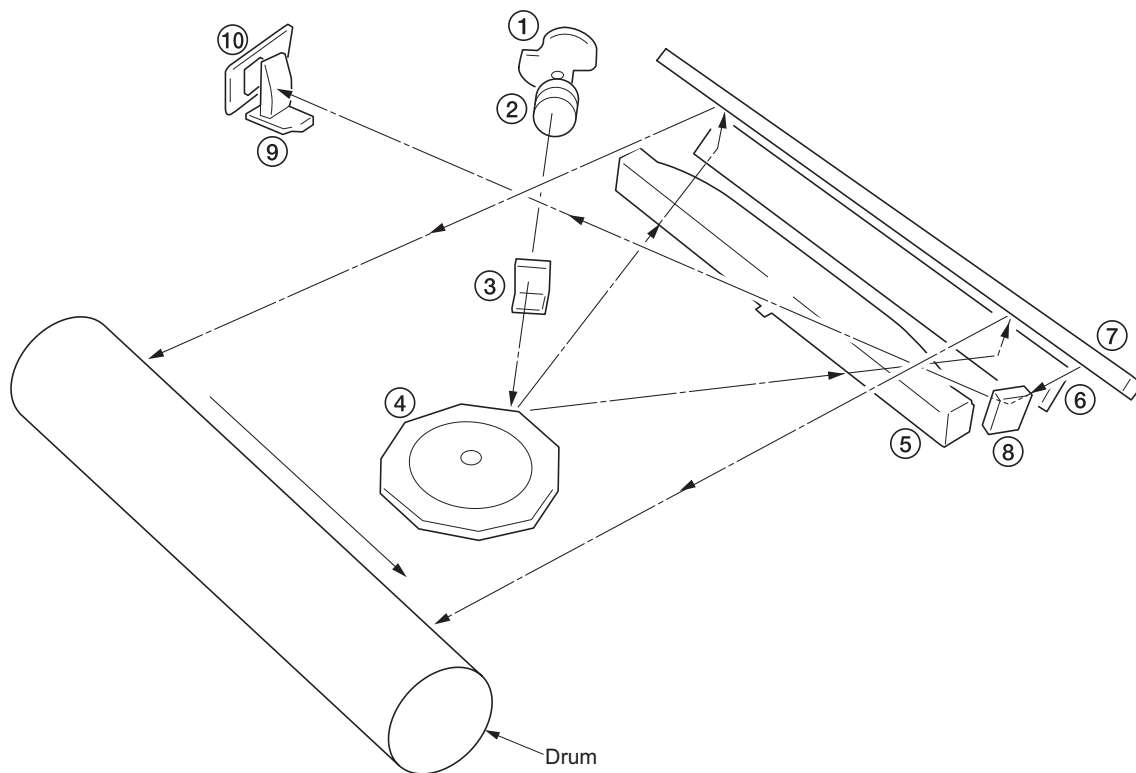
**(2) Image printing**

The image data scanned by the CCD PWB (CCDPWB) is processed on the main PWB (MPWB) and transmitted as image printing data to the laser scanner unit (LSU). By repeatedly turning the laser on and off, the laser scanner unit forms a latent image on the drum surface.



**Figure 2-1-9 Laser scanner unit (1)**

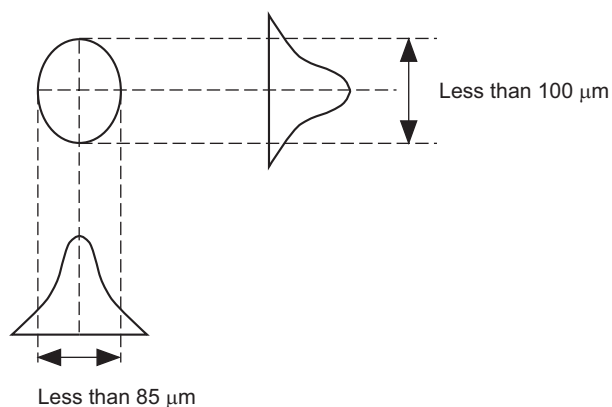
- (1) Laser diode PWB (LDPWB)
- (2) Collimator lens
- (3) Cylindrical lens
- (4) Polygon motor (PM)
- (5) Polygon mirror
- (6)  $f\theta$  lens
- (7) Mirror
- (8) Mirror
- (9) BD sensor mirror
- (10) Cylindrical correcting lens
- (11) BD sensor



**Figure 2-1-10 Laser scanner unit (2)**

1. Laser diode: Generates the laser beam which forms a latent image on the drum.
2. Collimator lens: Collimates the diffused laser beam emitted from the laser diode to convert it into a cylindrical beam.
3. Cylindrical lens: Shapes the collimated laser beam to suit the printing resolution.
4. Polygon mirror: Nine-facet mirror that rotates with each face reflecting the laser beam toward the drum for one main-direction scan.
5.  $f\theta$  lens: Corrects for non-linearity of the laser beam scanning speed on the drum surface, keeps the beam diameter constant and corrects for the vertical alignment of the polygon mirror to ensure that the focal plane of the laser beam is on the drum surface.
6. Mirror: Reflects the laser beam and changes the irradiation direction.
7. Mirror: Reflects the laser beam and changes the irradiation direction.
8. BD sensor mirror: Reflects the laser beam to the BD sensor to generate the main-direction (horizontal) sync signal.
9. Cylindrical correcting lens: Corrects for the deviation of the laser beam reflected by the BD sensor mirror to the BD sensor.
10. BD sensor: Detects the beam reflected by the BD sensor mirror, outputting a signal to the main PWB (MPWB) to provide timing for the main-direction sync signal.

The dimensions of the laser beam are as shown in Figure 2-1-11.

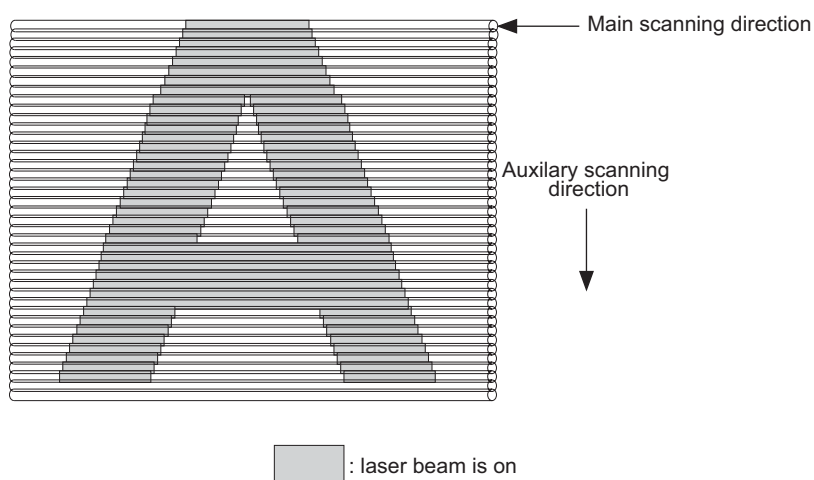


**Figure 2-1-11**

Scanning in the main direction is provided by the rotating polygon mirror, while scanning in the auxiliary direction is provided by the rotating drum, forming a static latent image on the drum.

The static latent image of the letter "A", for example, is formed on the drum surface as shown in Figure 2-1-12. Electrical charge is dissipated on the area of the drum surface irradiated by the laser.

The focal point of the laser beam is moved line by line, and adjacent lines slightly overlap each other.



**Figure 2-1-12**

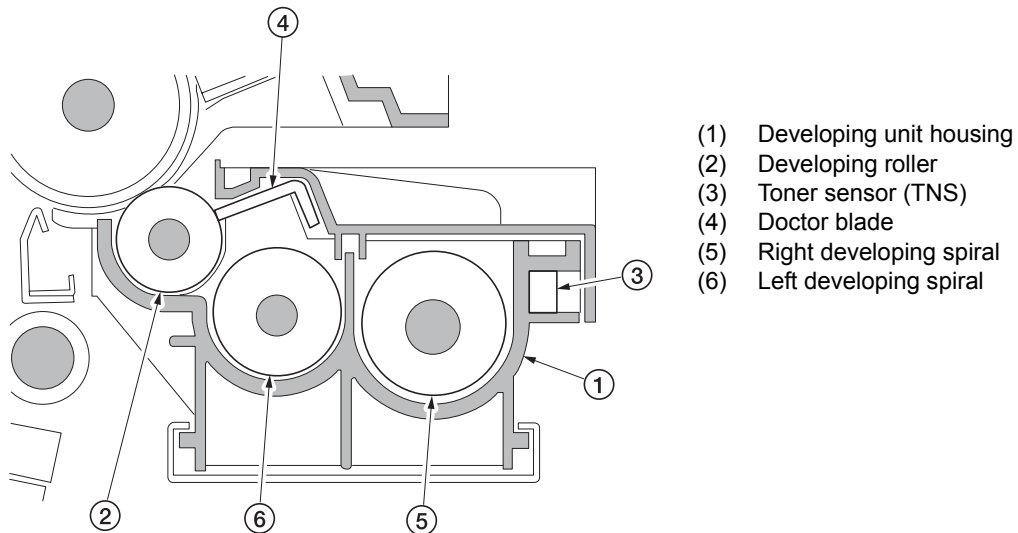
### 2-1-4 Developing section

The developing section consists of the developing unit and the toner container.

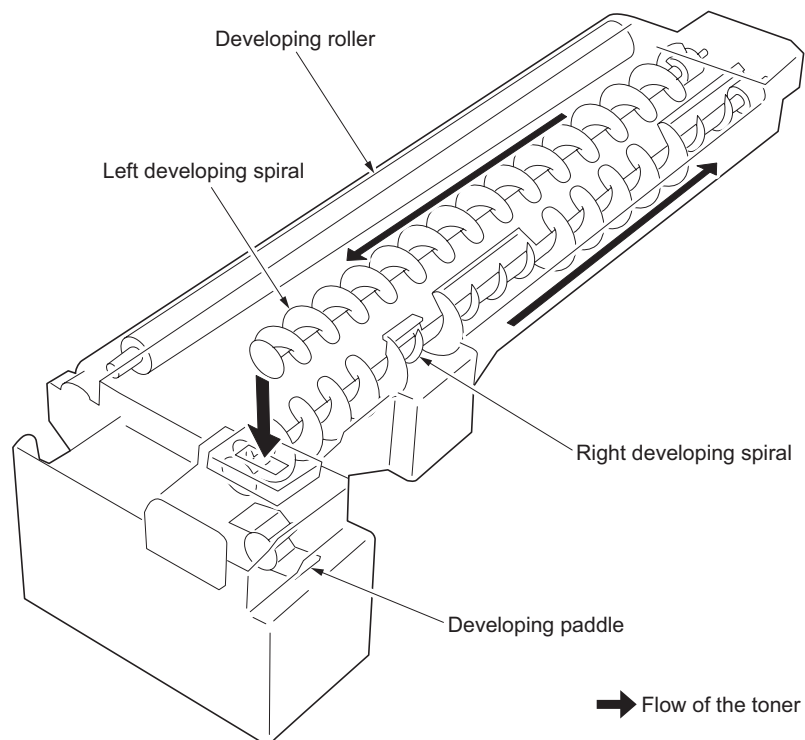
The developing unit consists of the developing roller where a magnetic brush is formed, the doctor blade and the developing spirals that agitate the toner.

When the toner sensor (TNS) detects a low toner level in the developing unit, the toner replenishment signal is output to the engine PWB (EPWB). The engine PWB (EPWB) that has received the signal turns on the toner replenishment solenoid (TNFSOL) and replenishes toner from the toner container to the developing unit.

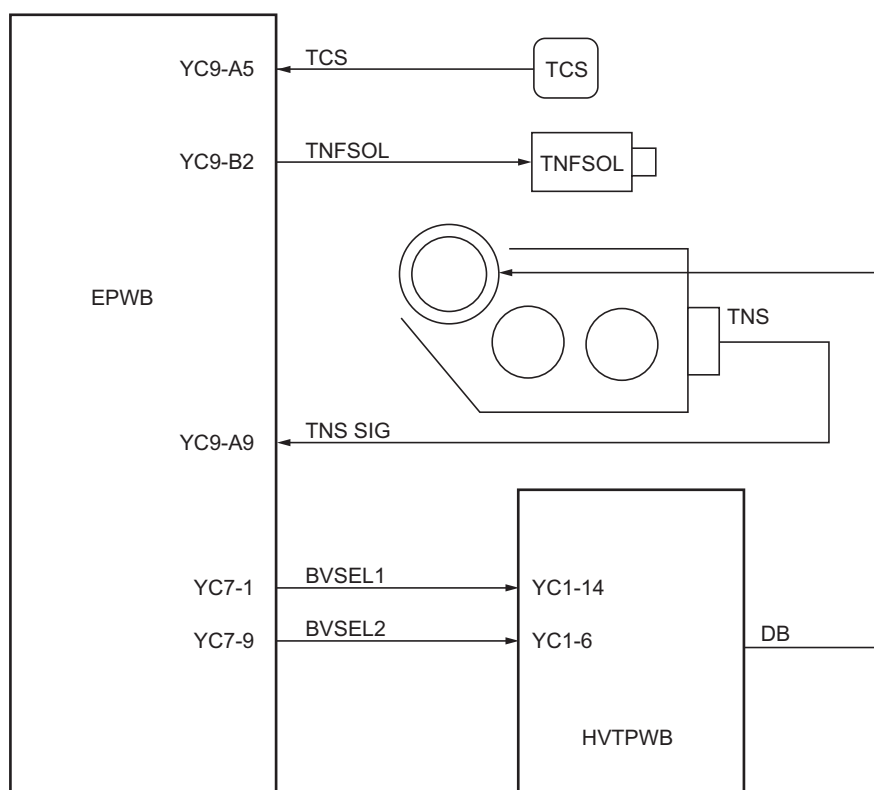
Also, the toner container sensor (TCS) checks whether or not toner remains in the toner container.



**Figure 2-1-13 Developing section**



**Figure 2-1-14 Flow of the toner**



**Figure 2-1-15 Developing section block diagram**



### 2-1-5 Transfer and separation sections

The transfer and separation section consists mainly of the transfer roller, separation electrode and drum separation claws. A high voltage generated by the high-voltage transformer PWB (HVTPWB) is applied to the transfer roller for transfer charging.

Paper after transfer is separated from the drum by applying separation bias that is output from the high-voltage transformer PWB (HVTPWB) to the separation electrode.

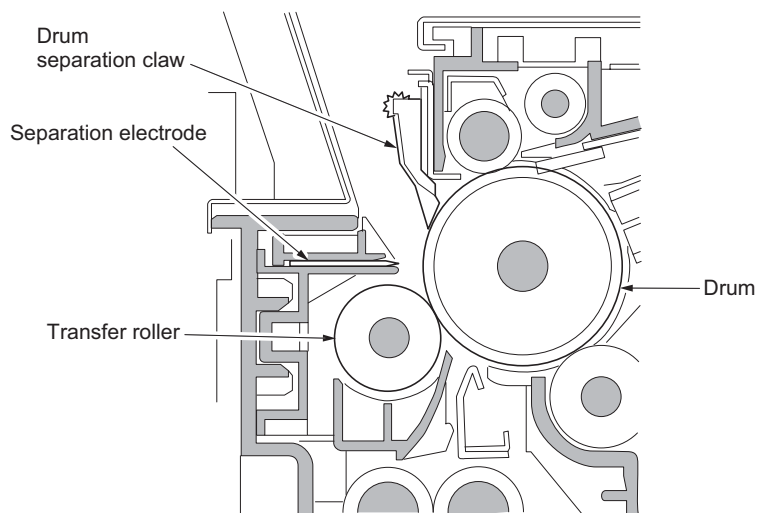


Figure 2-1-17 Transfer and separation sections

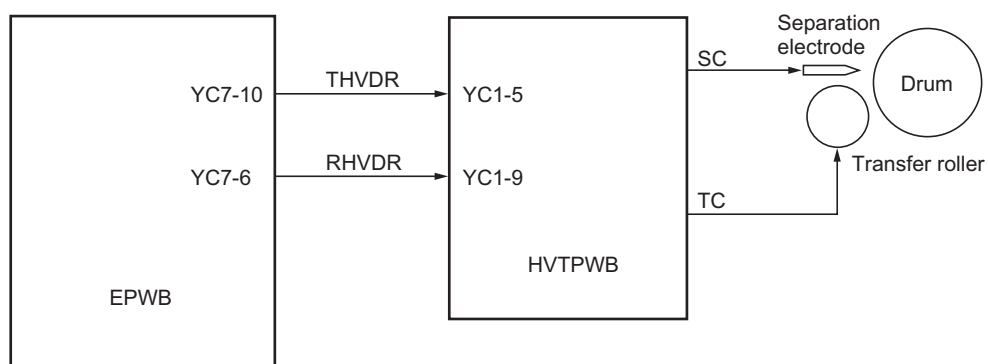
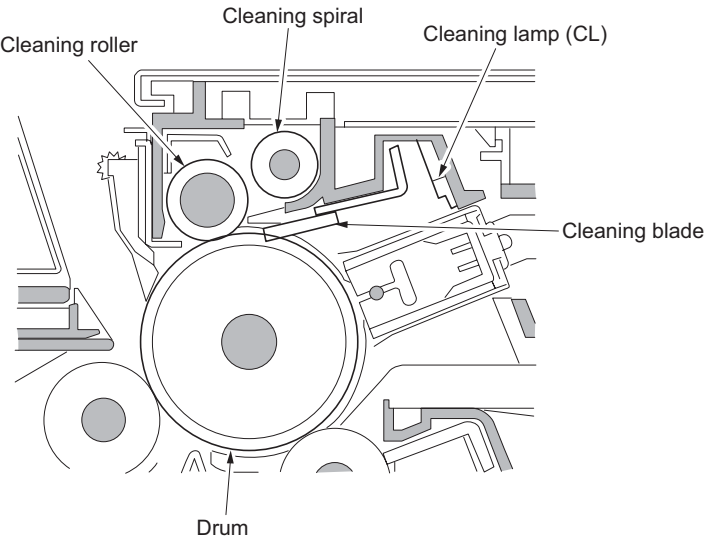


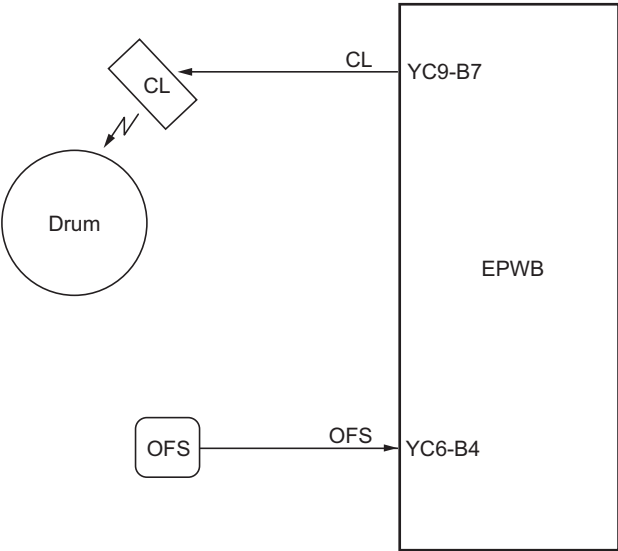
Figure 2-1-18 Transfer and separation sections block diagram

**2-1-6 Cleaning and charge erasing sections**

The cleaning section consists of the cleaning blade that removes residual toner from the drum surface after the transfer process, and the cleaning spiral that carries the residual toner back to the waste toner box. The cleaning lamp (CL) consists of LEDs and removes residual charge on the drum before main charging. Also the toner quantity in the waste toner box is sensed with the overflow sensor (OFS).



**Figure 2-1-19 Cleaning and charge erasing sections**



**Figure 2-1-20 Cleaning and charge erasing sections block diagram**

## 2-1-7 Fuser section

The fuser section consists of the parts shown in Figure 2-1-21. When paper reaches the fuser section after the transfer process, it passes between the press roller and heat roller, which is heated by fuser heaters M or S (FH-M or FH-S). Pressure is applied by the fuser unit pressure springs so that the toner on the paper is melted, fused and fixed onto the paper. The heat roller is heated by fuser heaters M or S (FH-M or FH-S) inside it; its surface temperature is detected by the fuser unit thermistor 1 and 2 (FTH1/2), and is regulated by the fuser heaters turning on and off.

If the fuser section becomes abnormally hot, fuser unit thermostat 1 and 2 (FTS1/2) operates shutting the power to the fuser heaters off. When the fusing process is completed, the paper is separated from the heat roller by its separation claws and is conveyed from the machine to eject and switchback section.

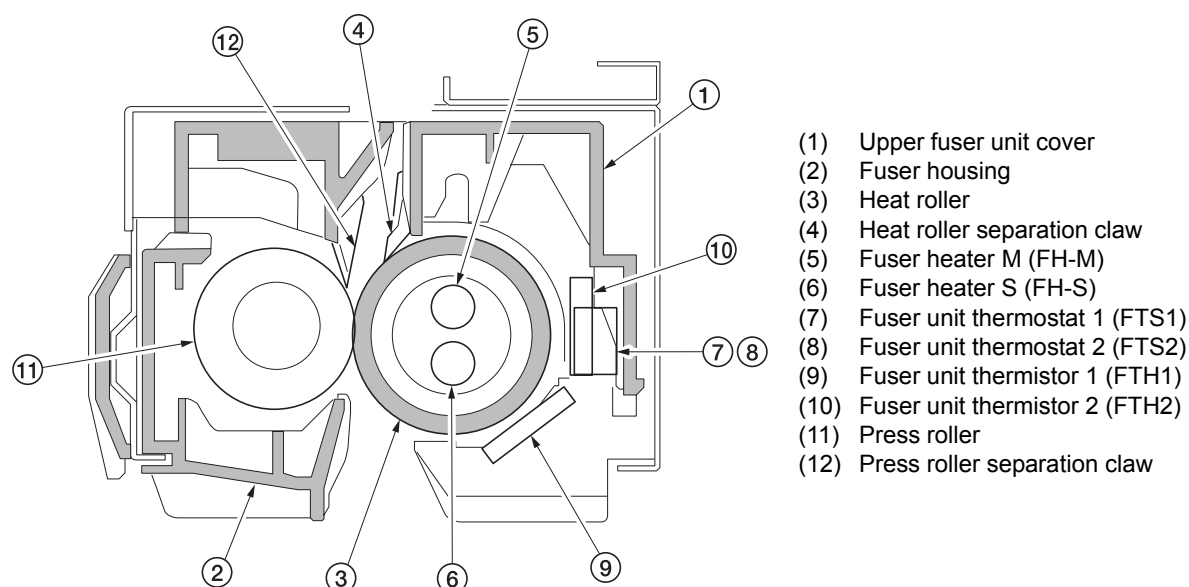


Figure 2-1-21 Fuser section

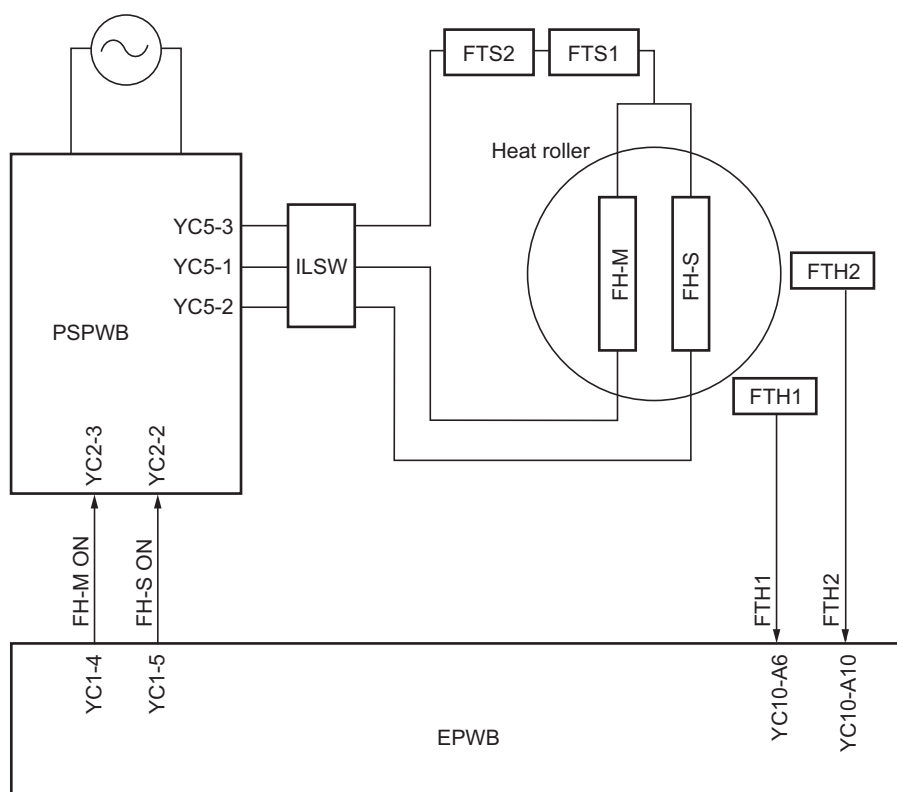


Figure 2-1-22 Fuser section block diagram

### 2-1-8 Eject and switchback sections

The eject and switchback sections eject paper on which fixing has ended with the eject roller that is rotated by forward rotation of the eject motor.

In duplex copying, paper is turned over by reverse rotation of the eject motor. When paper is transferred to the job separator or the internal finisher, the feedshift solenoid (FSSOL) is turned on to activate the feedshift guide to switch the paper transfer path.

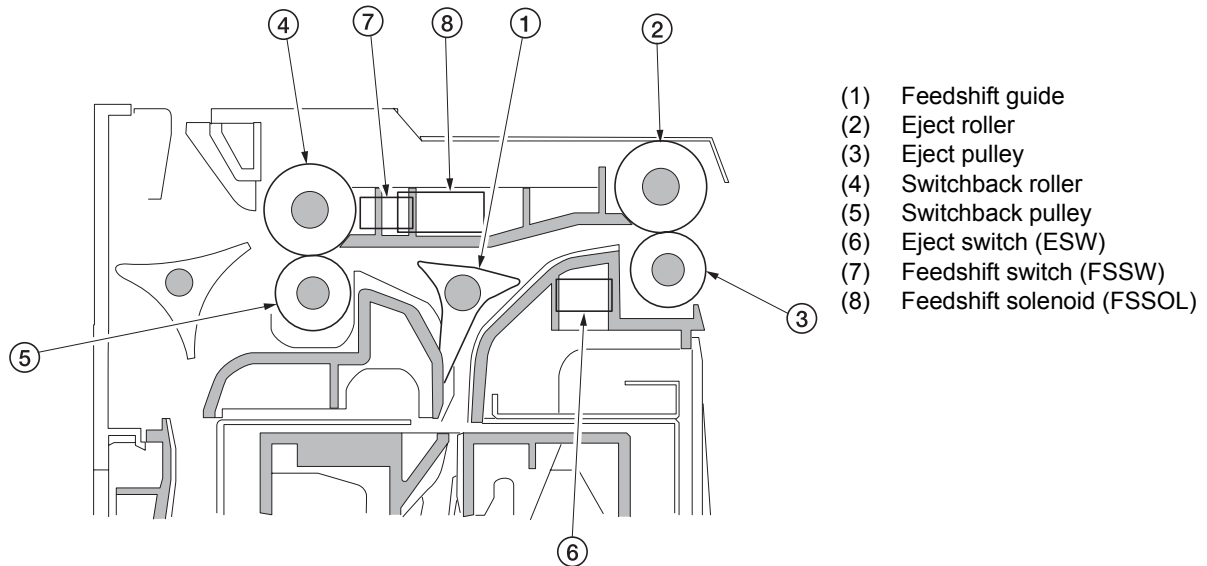


Figure 2-1-23 Eject and switchback sections

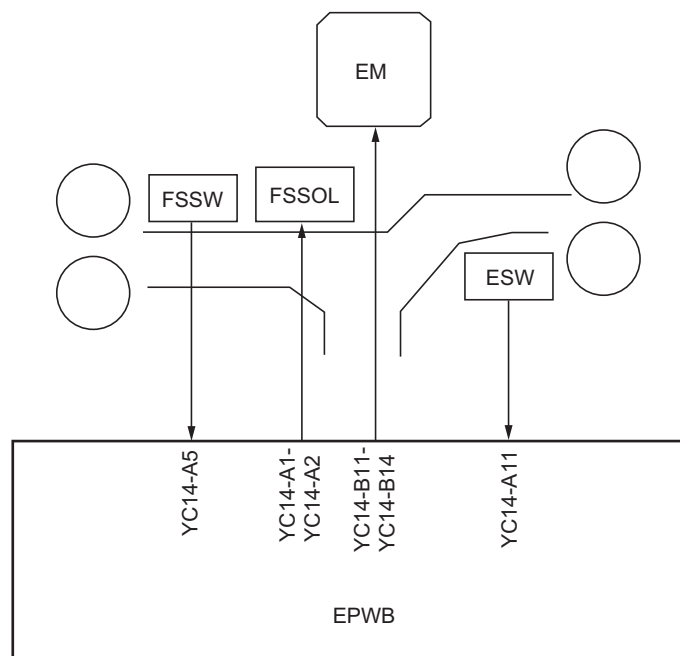
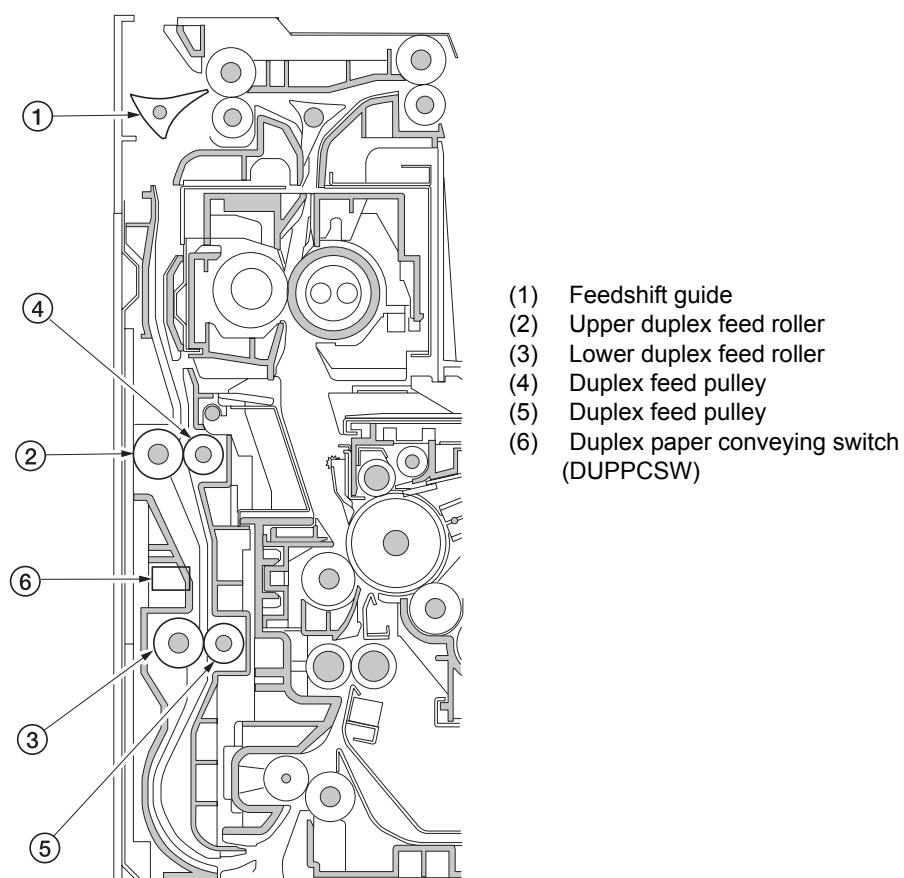


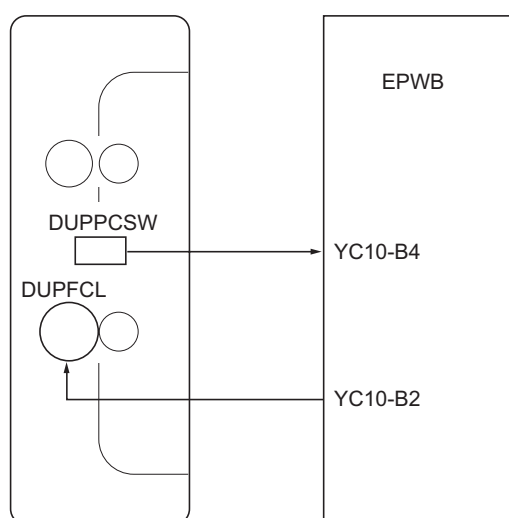
Figure 2-1-24 Eject and switchback sections block diagram

### 2-1-9 Duplex section

The duplex section consists of the components shown in figure. In duplex mode, after copying on to the reverse face of the paper, the paper is reversed in the switchback section and conveyed to the duplex section. The paper is then conveyed to the paper feed section by the upper and lower duplex feed rollers.



**Figure 2-1-25 Duplex section**

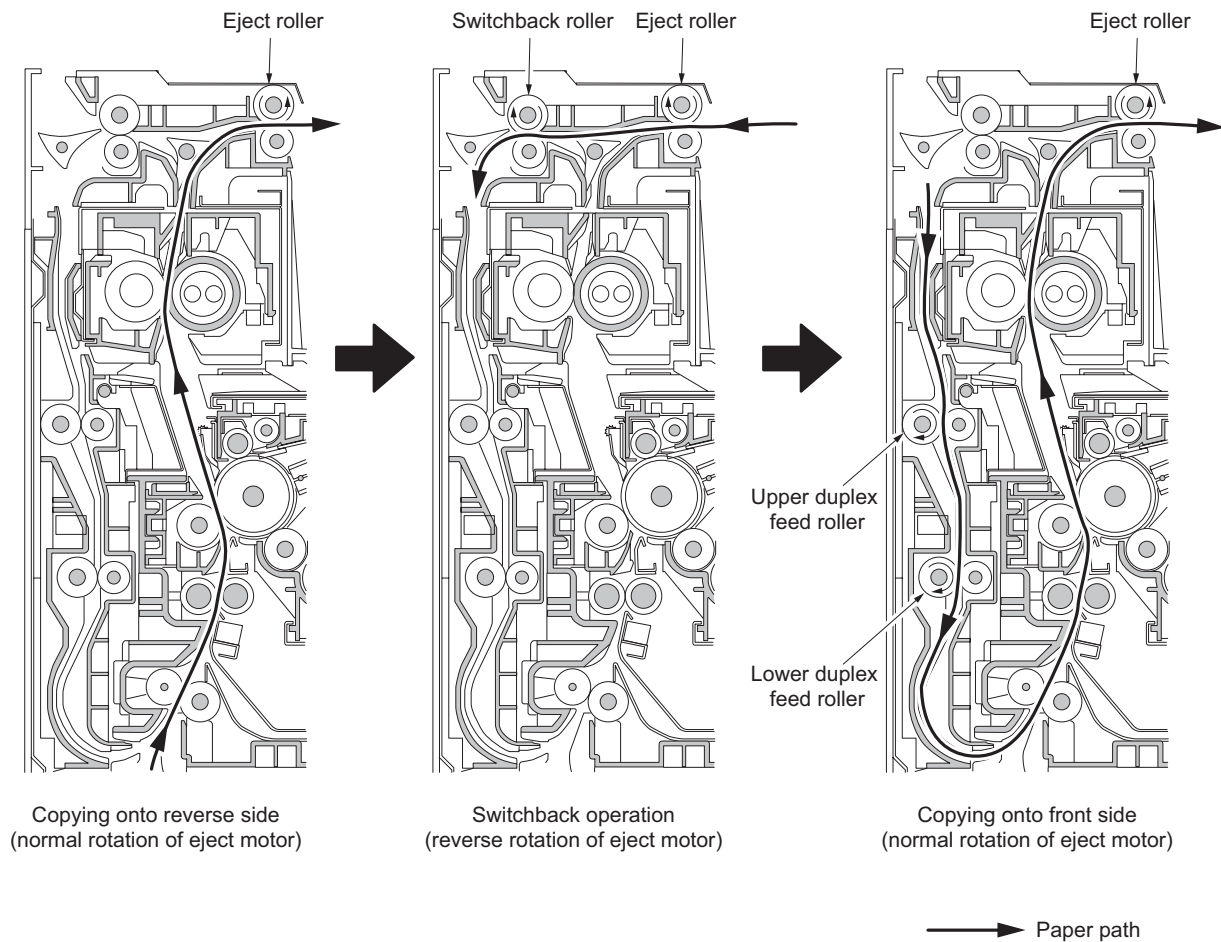


**Figure 2-1-26 Duplex section block diagram**

**(1) Paper conveying operation in duplex copying**

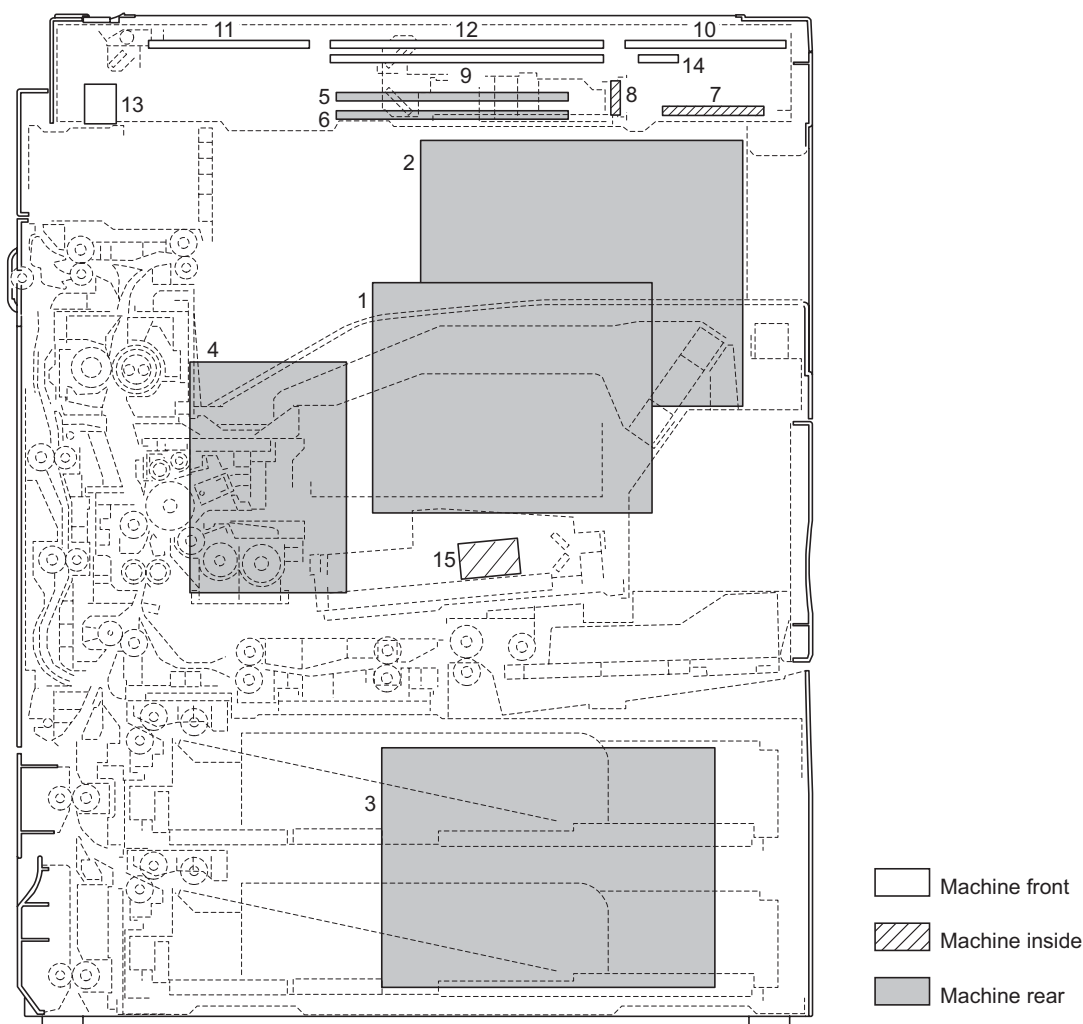
Paper of which copying onto the reverse side is complete is conveyed to the switchback section, the eject motor switches from normal rotation to reverse rotation to switch the eject roller to reverse rotation, and the paper conveying direction is reversed. Paper that has been switched back is conveyed to the duplex section via the eject roller and the switchback roller.

Paper that has been conveyed to the duplex section is conveyed to the paper feed section again by rotation of the upper duplex feed roller and the lower duplex feed roller and copying onto the front side is performed.

**Figure 2-1-27**

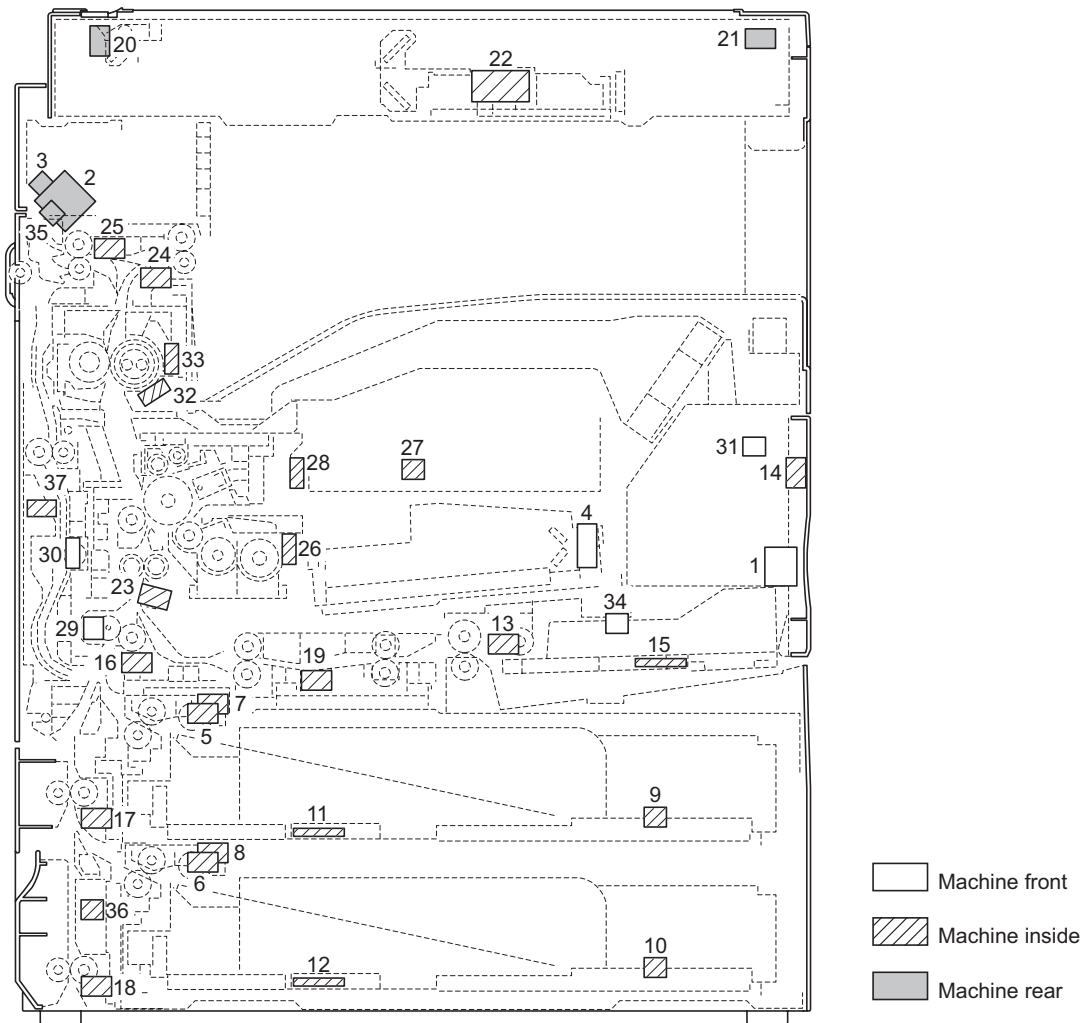
## 2-2-1 Electrical parts layout

### (1) PWBs



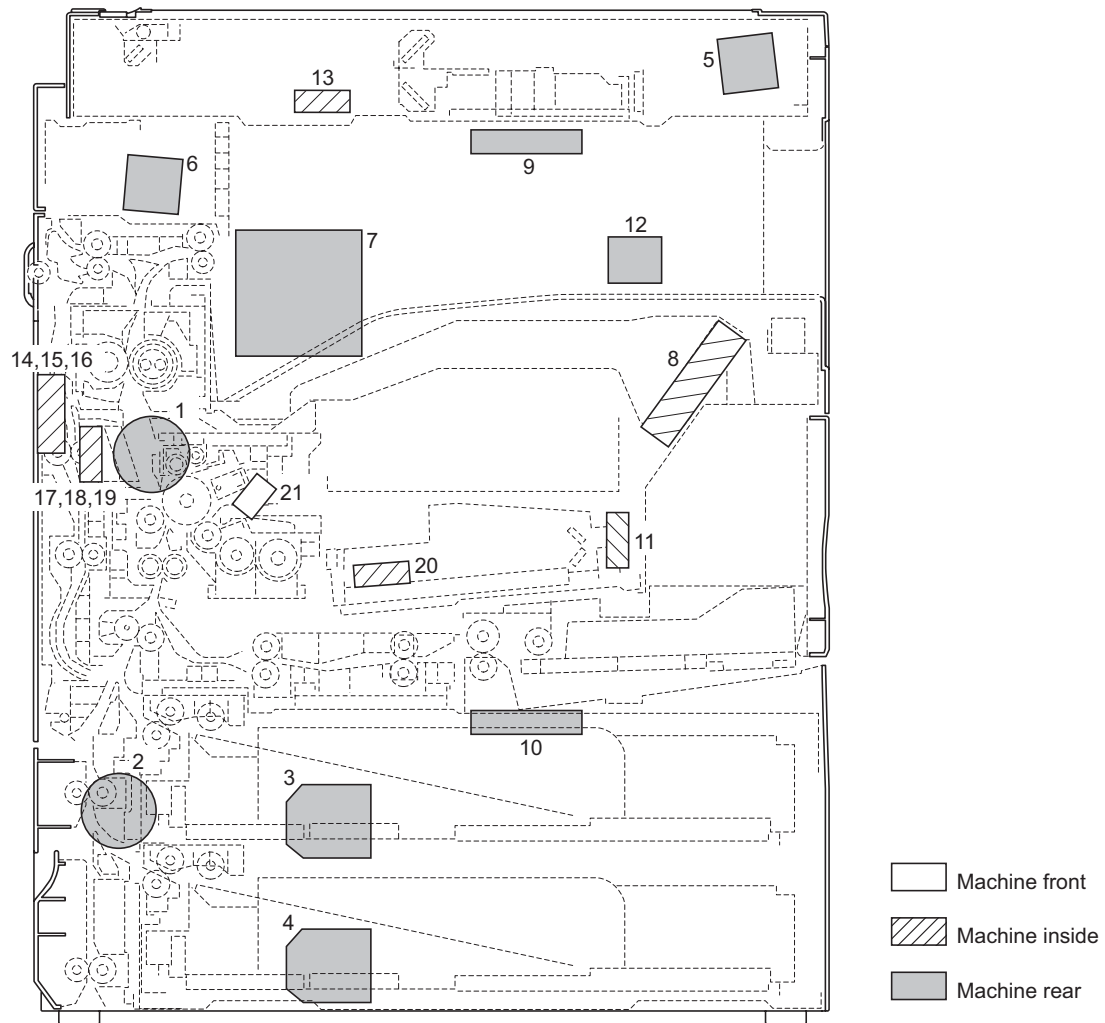
**Figure 2-2-1 PWBs**

- |   |  |
|---|--|
| 1. Engine PWB (EPWB).....                   | Controls the other PWBs, electrical components and optional devices.     |
| 2. Main PWB (MPWB) .....                    | Controls the image processing and operation panel.                       |
| 3. Power source PWB (PSPWB) .....           | Generates +24 V DC, 12 V DC and 5V DC; controls the fuser heater.        |
| 4. High voltage PWB (HVTPWB).....           | Main charging. Generates developing bias and high voltages for transfer. |
| 5. Scanner PWB (SPWB) .....                 | Controls the scanning section.   |
| 6. Inverter PWB (INPWB) .....               | Controls the exposure lamp.  |
| 7. SHD PWB (SHDPWB).....                    | Controls the shading correction and AGC of CCD.                          |
| 8. CCD PWB (CCDPWB).....                    | Reads the image off originals.   |
| 9. Main operation unit PWB (OPWB-M).....    | Controls touch panel and LCD indication.                                 |
| 10. Right operation unit PWB (OPWB-R) ..... | Consists of the operation keys and display LEDs.                         |
| 11. Left operation unit PWB (OPWB-L) .....  | Consists of the operation keys and display LEDs.                         |
| 12. Upper operation unit PWB (OPWB-U) ..... | Consists of the operation keys and display LEDs.                         |
| 13. Front operation unit PWB (OPWB-F) ..... | Consists of the display LEDs.  |
| 14. LCD inverter PWB (LINPWB) .....         | Controls LCD indication.   |
| 15. Laser diode PWB (LDPWB).....            | Generates and controls the laser light.                                  |

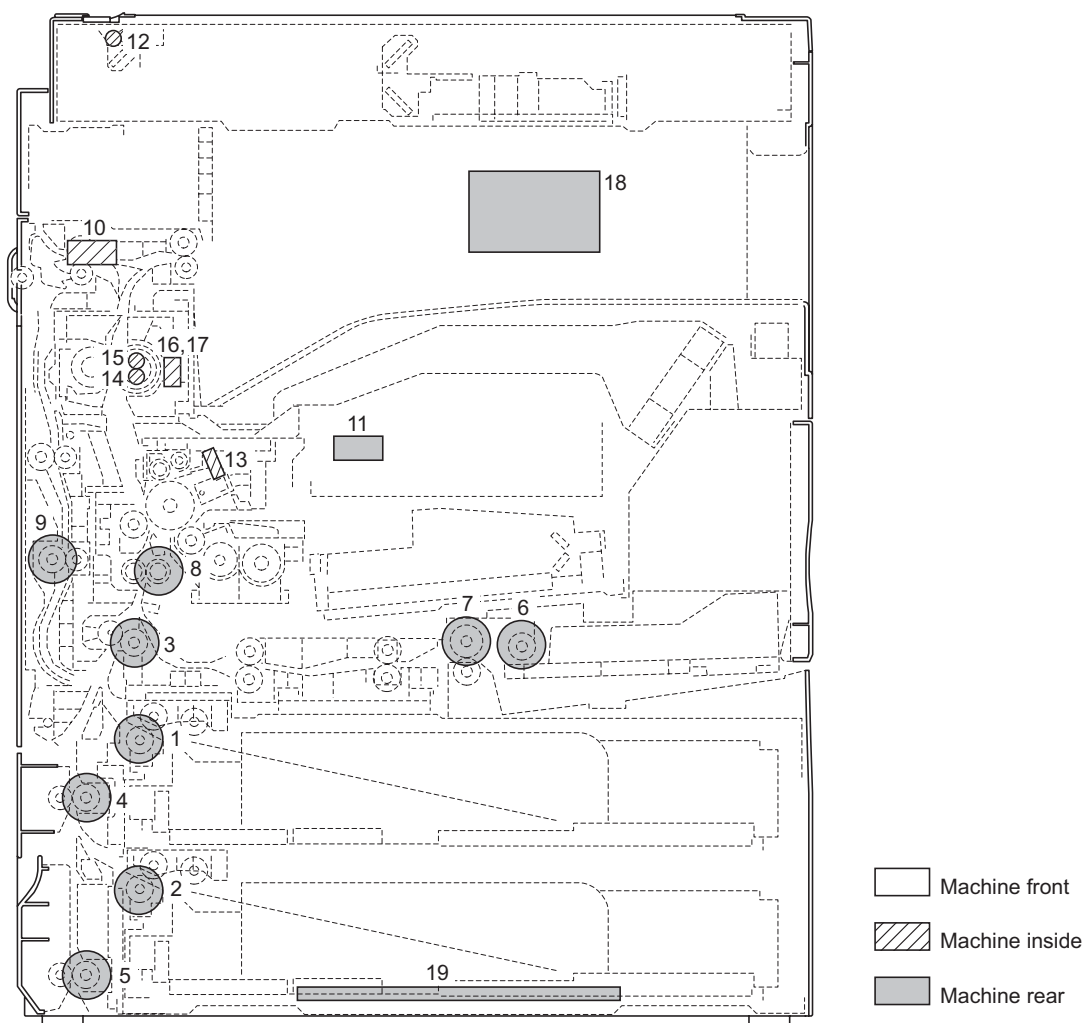
**(2) Switches and sensors****Figure 2-2-2 Switches and sensors**

- |  |  |
|--|--|
| 1. Main power switch (MSW)                     | Turns the AC power on and off.                             |
| 2. Interlock switch (ILSW)                     | Turns the AC power for the fuser heater on and off.        |
| 3. Safety switch 1 (SSW1)                      | Breaks the safety circuit when the left cover 1 is opened. |
| 4. Safety switch 2 (SSW2)                      | Breaks the safety circuit when the front cover is opened.  |
| 5. Upper paper switch (PSW-U)                  | Detects the presence of paper in the cassette 1.           |
| 6. Lower paper switch (PSW-L)                  | Detects the presence of paper in the cassette 2.           |
| 7. Upper lift limit switch (LICSW-U)           | Detects the cassette 1 lift reaching the upper limit.      |
| 8. Lower lift limit switch (LICSW-L)           | Detects the cassette 2 lift reaching the upper limit.      |
| 9. Upper paper size length switch<br>(PLSW-U)  | Detects the length of paper in the cassette 1.             |
| 10. Lower paper size length switch<br>(PLSW-L) | Detects the length of paper in the cassette 2.             |
| 11. Upper paper size width switch<br>(PWSW-U)  | Detects the width of paper in the cassette 1.              |
| 12. Lower paper size width switch<br>(PWSW-L)  | Detects the width of paper in the cassette 2.              |
| 13. MP paper switch (MPPSW)                    | Detects the presence of paper on the MP tray.              |
| 14. MP paper size length switch<br>(MPPLSW)    | Detects the length of paper on the MP tray.                |
| 15. MP paper size width switch<br>(MPPWSW)     | Detects the width of paper on the MP tray.                 |

16. Feed switch 1 (FSW1) ..... Controls feed clutch 1 drive timing.
17. Feed switch 2 (FSW2) ..... Controls feed clutch 2 drive timing
18. Feed switch 3 (FSW3) ..... Controls feed clutch 3 drive timing
19. MP feed switch (MPFSW)..... Controls MP feed clutch drive timing
20. Scanner home position switch (SHPSW)..... Detects the optical system in the home position.
21. Original detection switch (ODSW) ..... Operates the original size detection sensor.
22. Original size detection sensor (OSDS) ..... Detects the size of the original.
23. Registration switch (RSW) ..... Controls the secondary paper feed start timing.
24. Eject switch (ESW) ..... Detects a paper misfeed in the fuser section.
25. Feedshift switch (FSSW) ..... Detects a paper misfeed in the switchback section in a duplex copy.
26. Toner sensor (TNS)..... Detects the toner density in the developing unit.
27. Toner container detection switch  
(TCDSW) ..... Detects the presence of the toner container.
28. Toner container sensor (TCS)..... Detects the quantity of toner in a toner container.
29. Waste toner box detection switch  
(WTDSW)..... Detects the presence of the waste toner box.
30. Overflow sensor (OFS) ..... Detects when the waste toner box is full.
31. Humidity sensor (HUMS) ..... Detects absolute humidity.
32. Fuser unit thermistor 1 (FTH1)..... Detects the heat roller temperature.
33. Fuser unit thermistor 2 (FTH2)..... Detects the heat roller temperature.
34. Front cover switch (FRCSW) ..... Detects the opening and closing of the front cover.
35. Left cover 1 switch (LC1SW) ..... Detects the opening and closing of the left cover 1.
36. Left cover 2 switch (LC2SW) ..... Detects the opening and closing of the left cover 2.
37. Duplex paper conveying switch  
(DUPPCSW) ..... Detects a paper jam in the duplex section.

**(3) Motors****Figure 2-2-3 Motors**

- |  |  |
|--|--|
| 1. Drive motor (DM) .....                    | Drives the machine.  |
| 2. Paper feed motor (PFM) .....              | Drives paper feed section.   |
| 3. Upper lift motor (LM-U) .....             | Drives cassette 1 lift.  |
| 4. Lower lift motor (LM-L) .....             | Drives cassette 2 lift.  |
| 5. Scanner motor (SM) .....                  | Drives the optical system.   |
| 6. Eject motor (EM) .....                    | Drives the eject section.  |
| 7. Cooling fan motor 1 (CFM1) .....          | Cools the machine interior.  |
| 8. Cooling fan motor 2 (CFM2) .....          | Cools the machine interior.  |
| 9. Cooling fan motor 3 (CFM3) .....          | Cools the machine interior.  |
| 10. Cooling fan motor 4 (CFM4) .....         | Cools the machine interior (around the power supply unit).                 |
| 11. Cooling fan motor 5 (CFM5) .....         | Cools the machine interior (around the LSU).                               |
| 12. Cooling fan motor 6 (CFM6) .....         | Cools the machine interior (controller box).                               |
| 13. Cooling fan motor 7 (CFM7) .....         | Cools the machine interior (operation panel).                              |
| 14. Cooling fan motor 8 (CFM8) .....         | Cools the machine interior and supports paper transfer for duplex copying. |
| 15. Cooling fan motor 9 (CFM9) .....         | Cools the machine interior and supports paper transfer for duplex copying. |
| 16. Cooling fan motor 10 (CFM10) .....       | Cools the machine interior and supports paper transfer for duplex copying. |
| 17. Cooling fan motor 11 (CFM11) .....       | Cools the machine interior (around the paper conveying).                   |
| 18. Cooling fan motor 12 (CFM12) .....       | Cools the machine interior (around the paper conveying).                   |
| 19. Cooling fan motor 13 (CFM13) .....       | Cools the machine interior (around the paper conveying).                   |
| 20. Polygon motor (PM) .....                 | Drives the polygon mirror.   |
| 21. Main charger cleaning motor (MCCM) ..... | Drives the main charger auto cleaning.                                     |

**(4) Other electrical components****Figure 2-2-4 Other electrical components**

- |   |   |
|---|---|
| 1. Upper paper feed clutch 1 (PFCL-U) ..... | Primary paper feed from the cassette 1.                       |
| 2. Lower paper feed clutch 2 (PFCL-L) ..... | Primary paper feed from the cassette 2.                       |
| 3. Feed clutch 1 (FCL1) .....               | Controls the drive of feed roller.                            |
| 4. Feed clutch 2 (FCL2) .....               | Controls the drive of feed roller.                            |
| 5. Feed clutch 3 (FCL3) .....               | Controls the drive of feed roller.                            |
| 6. MP paper feed clutch (MPPFCL) .....      | Primary paper feed from the MP tray.                          |
| 7. MP feed clutch (MPFCL) .....             | Controls the drive of MP feed roller.                         |
| 8. Registration clutch (RCL) .....          | Secondary paper feed.   |
| 9. Duplex feed clutch (DUPFCL) .....        | Controls the drive of the duplex feed roller.                 |
| 10. Feedshift solenoid (FSSOL) .....        | Operates the feedshift guide.                                 |
| 11. Toner feed solenoid (TNFSOL) .....      | Replenishes toner.  |
| 12. Exposure lamp (EL) .....                | Exposes originals.  |
| 13. Cleaning lamp (CL) .....                | Removes residual charge from the drum surface.                |
| 14. Fuser heater M (FH-M) .....             | Heats the heat roller.  |
| 15. Fuser heater S (FH-S) .....             | Heats the heat roller.  |
| 16. Fuser unit thermostat 1 (FTS1) .....    | Prevents overheating in the fuser section.                    |
| 17. Fuser unit thermostat 2 (FTS2) .....    | Prevents overheating in the fuser section.                    |
| 18. Hard disk unit (HDD) .....              | Stores the image data and information of job accounting mode. |
| 19. Cassette heater (CH) .....              | Dehumidifies the cassette section.                            |



## 2-3-1 Power source PWB

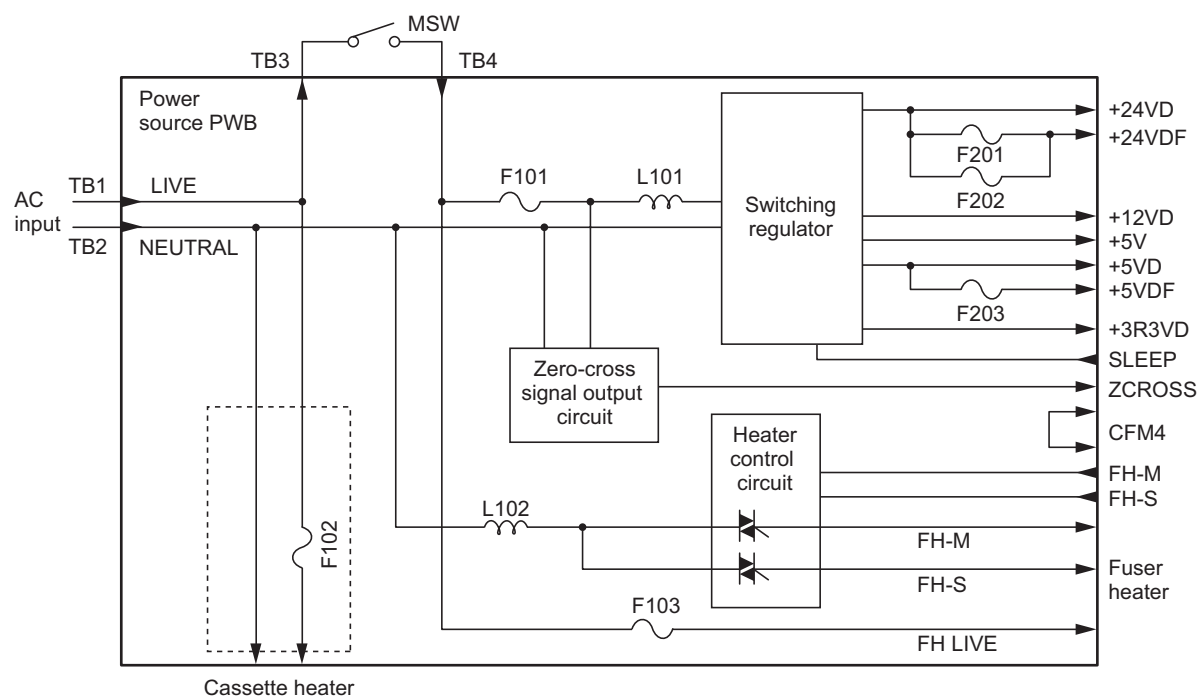


Figure 2-3-1 Power source PWB diagram

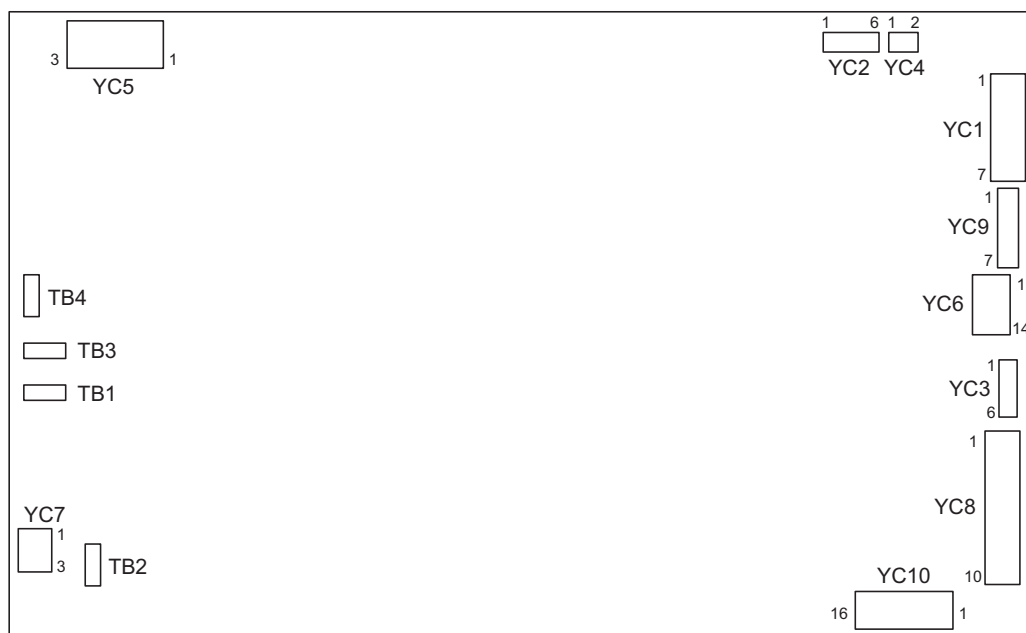


Figure 2-3-2 Power source PWB silk-screen diagram

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>TB</b>  Connected to the AC inlet	TB1	LIVE	I	120 V AC 220-240 V AC	AC power input
	TB2	COM	I	120 V AC 220-240 V AC	AC power input
	TB3	LIVE	I	120 V AC 220-240 V AC	AC power output
	TB4	LIVE	O	120 V AC 220-240 V AC	AC power input
<b>YC1</b>  Connected to the engine PWB	1	+24VDR	O	24 V DC	24 V DC power output
	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	+3.3VD	O	3.3 V DC	3.3 V DC power output
	6	+5VD	O	5 V DC	5 V DC power output
	7	+24VD	O	24 V DC	24 V DC power output
<b>YC2</b>  Connected to the engine PWB	1	GND	-	-	Ground
	2	FH-S ON	I	0/5 V DC	FH-S On/Off
	3	FH-M ON	I	5 V DC	FH-M On/Off
	4	+5VD	O	5 V DC	5 V DC power output
	5	ZCROSS	O	0/5 V DC (pulse)	Zero-cross signal
	6	CFM3,4	I	0/24 V DC	CFM3,4 On/Off
<b>YC3</b>  Connected to the optional document finisher	1	SGND	-	-	Ground
	2	SGND	-	-	Ground
	3	SGND	-	-	Ground
	4	SGND	-	-	Ground
	5	SGND	-	-	Ground
	6	SGND	-	-	Ground
<b>YC4</b>  Connected to the cooling fan motor 3/4	1	CFM3,4	O	DC0V/24V	CFM3,4 On/Off
	2	+24VD	O	24 V DC	24 V DC power output
<b>YC5</b>  Connected to the fuser heater M/S	1	FH-M ON	O	120/0 V AC 220-240/0 V AC	FH-M On/Off
	2	FH-S ON	O	120/0 V AC 220-240/0 V AC	FH-S On/Off
	3	FH LIVE	O	120 V AC 220-240 V AC	AC power output

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC6</b> Connected to the scanner PWB	1	24V	O	24 V DC	24 V DC power output
	2	24V	O	24 V DC	24 V DC power output
	3	24V	O	24 V DC	24 V DC power output
	4	PGND	-	-	Ground
	5	PGND	-	-	Ground
	6	PGND	-	-	Ground
	7	SGND	-	-	Ground
	8	SGND	-	-	Ground
	9	SGND	-	-	Ground
	10	SGND	-	-	Ground
	11	12V	O	12 V DC	12 V DC power output
	12	5V	O	5 V DC	5 V DC power output
	13	3.3V	O	3.3 V DC	3.3 V DC power output
	14	3.3V	O	3.3 V DC	3.3 V DC power output
<b>YC7</b> Connected to the optional cassette heater	1	LIVE	O	120 V AC 220-240 V AC	AC power output
	3	NEUTRAL	O	120 V AC 220-240 V AC	AC power output
<b>YC8</b> Connected to the optional paper feeder, optional document finisher and hard disk	1	V24V	O	24 V DC	24 V DC power output
	2	V24V	O	24 V DC	24 V DC power output
	3	5.1V	O	5 V DC	5 V DC power output
	4	PGND	-	-	Ground
	5	FGND	-	-	Ground
	6	PGND	-	-	Ground
	7	+12VD	O	12 V DC	12 V DC power output
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	+5VD	O	5 V DC	5 V DC power output
<b>YC9</b> Connected to the main operation PWB	1	+24VD	O	24 V DC	24 V DC power output
	2	+5VD	O	5 V DC	5 V DC power output
	3	+5VD	O	5 V DC	5 V DC power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	N.C	-	-	Not used

Connector	Pin No.	Signal	I/O	Voltage	Description
YC10 Connected to the main PWB	1	SLEEP	I	0/5 V DC	SLEEP signal
	2	+5V	O	5 V DC	5 V DC power output
	3	+5V	O	5 V DC	5 V DC power output
	4	+5V	O	5 V DC	5 V DC power output
	5	+5V	O	5 V DC	5 V DC power output
	6	+5V	O	5 V DC	5 V DC power output
	7	+5V	O	5 V DC	5 V DC power output
	8	+5V	O	5 V DC	5 V DC power output
	9	GND	-	-	Ground
	10	GND	-	-	Ground
	11	GND	-	-	Ground
	12	GND	-	-	Ground
	13	GND	-	-	Ground
	14	GND	-	-	Ground
	15	GND	-	-	Ground
	16	GND	-	-	Ground

## 2-3-2 Engine PWB

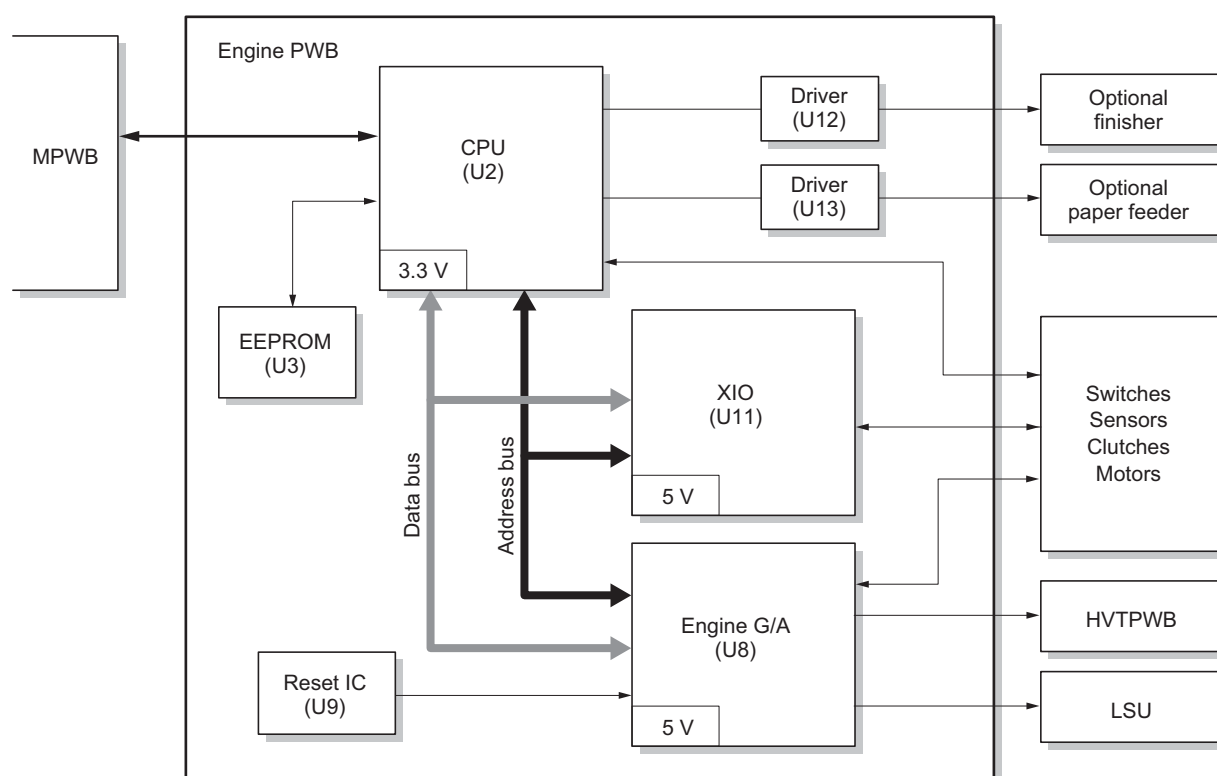


Figure 2-3-3 Engine PWB diagram

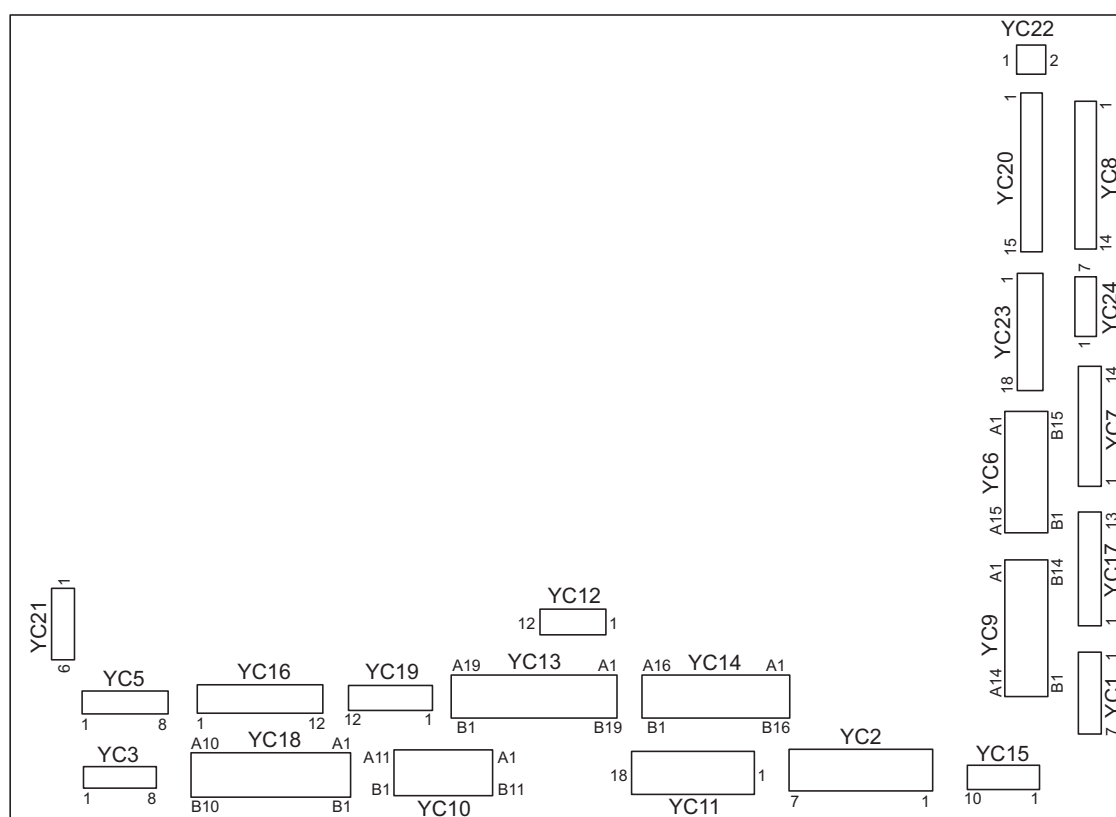


Figure 2-3-4 Engine PWB silk-screen diagram

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC1</b> Connected to the power source PWB	1	CFM3,4	O	0/24 V DC	CFM3,4: On/Off
	2	ZCROSS	I	0/5 V DC (pulse)	Zero-cross signal
	3	+5VD	I	5 V DC	5 V DC power input
	4	FH-M ON	O	0/5 V DC	FH-M: On/Off
	5	FH-S ON	O	0/5 V DC	FH-S: On/Off
	6	GND	-	-	Ground
<b>YC2</b> Connected to the power source PWB	1	+24VDR	I	24 V DC	24 V DC power input
	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	3.3V	I	3.3 V DC	3.3 V DC power input
	6	+5VD	I	5 V DC	5 V DC power input
	7	+24VDR	I	24 V DC	24 V DC power input
<b>YC3</b> Connected to the optional document finisher	1	SET SIG	I	0/5 V DC	Document finisher connection signal
	2	DFSDO	O	0/5 V DC (pulse)	Document finisher serial communication data signal
	3	DFSDI	I	0/5 V DC (pulse)	Document finisher serial communication data signal
	4	DFSCLK	O	0/5 V DC (pulse)	Document finisher CLOCK signal
	5	DFSEL	O	0/5 V DC	Document finisher SELECT signal
	6	SISEL	-	-	Not used
	7	DFRDY	I	0/5 V DC	Document finisher READY signal
	8	SIRDY	-	-	Not used
<b>YC5</b> Connected to the optional paper feeder	1	GND	-	-	Ground
	2	+5VD	O	5 V DC	5 V DC power output
	3	PFSEL	O	0/5 V DC	Paper feeder SELECT signal
	4	PFSCCLK	O	0/5 V DC (pulse)	Paper feeder CLOCK signal
	5	PFSDI	I	0/5 V DC (pulse)	Paper feeder serial communication data signal
	6	PFSDO	O	0/5 V DC (pulse)	Paper feeder serial communication data signal
	7	PFRDY	I	0/5 V DC	Paper feeder READY signal
	8	PFEEED	O	0/5 V DC	Paper feeder FEED signal
<b>YC6</b> Connected to the MP unit, waste toner box detection switch, overflow sensor, front cover switch and cooling fan motor 1/2	A1	MPPWSW0	I	0/5 V DC	MPPWSW: On/Off
	A2	MPPWSW1	I	0/5 V DC	MPPWSW: On/Off
	A3	MPPWSW2	I	0/5 V DC	MPPWSW: On/Off
	A4	GND	-	-	Ground
	A5	+5VD	O	5 V DC	5 V DC power output
	A6	MPPSW	I	0/5 V DC	MPPSW: On/Off
	A7	GND	-	-	Ground
	A8	+24VDR	O	24 V DC	24 V DC power output
	A9	MPPFCL	O	0/24 V DC	MPPFCL: On/Off
	A10	+24VDR	O	24 V DC	24 V DC power output
	A11	MPFCL	O	0/24 V DC	MPFCL: On/Off
	B1	NC	-	-	Not used
	B2	GND	-	-	Ground
	B3	CFM2	O	0/24 V DC	CFM2: On/Off
	B4	+5VD	O	5 V DC	5 V DC power output

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC6</b> Connected to the MP unit, waste toner box detection switch, overflow sensor, front cover switch and cooling fan motor 1/2	B5	WTDSW	I	0/5 V DC	WTDSW: On/Off
	B6	GND	-	-	Ground
	B7	OFS	I	0/5 V DC	OFS: On/Off
	B8	GND	-	-	Ground
	B9	FRCSW	I	0/5 V DC	FRCSW: On/Off
	B10	GND	-	-	Ground
	B11	CFM1	O	0/24 V DC	CFM1: On/Off
	B12	GND	-	-	Ground
	B13	+5VD	O	5 V DC	5 V DC power output
	B14	MPPLSW	I	0/5 V DC	MPPLSW: On/Off
	B15	GND	-	-	Ground
<b>YC7</b> Connected to the high-voltage PWB	1	BVSEL1	O	0 to 5 V DC	Developing bias control voltage
	2	+24VDR	O	24 V DC	24 V DC power output
	3	GND	-	-	Ground
	4	MHVDR	O	0/5 V DC	Main charging: On/Off
	5	HVCLK	O	0/5 V DC (pulse)	Developing bias CLOCK signal
	6	RHVDR	O	0/5 V DC	Separation charging: On/Off
	7	RISEL	O	0 to 5 V DC	Separation charging control voltage
	8	TICTL	O	0 to 5 V DC	Transfer charging control voltage
	9	BVSEL2	O	0 to 5 V DC	Developing bias control voltage
	10	THVDR	O	0/5 V DC	Transfer charging: On/Off
	11	NC	-	-	Not used
	12	NC	-	-	Not used
	13	NC	-	-	Not used
	14	NC	-	-	Not used
<b>YC8</b> Connected to the laser scanner unit	1	NC	-	-	Not used
	2	NC	-	-	Not used
	3	NC	-	-	Not used
	4	NC	-	-	Not used
	5	NC	-	-	Not used
	6	NC	-	-	Not used
	7	NC	-	-	Not used
	8	NC	-	-	Not used
	9	NC	-	-	Not used
	10	+24VDR	O	24 V DC	24 V DC power output
	11	GND	-	-	Ground
	12	SCAN	O	0/24 V DC	PM: On/Off
	13	SCRDYN	I	0/5 V DC	PM READY signal
	14	SCCLK	O	0/5 V DC (pulse)	PM CLOCK signal

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC9</b> Connected to the MP feed switch, toner container sensor, developing unit, toner feed solenoid, toner container detection switch and drum unit	A1	GND	-	-	Ground
	A2	MPFSW	I	0/5 V DC	MPFSW: On/Off
	A3	+5VD	O	5 V DC	5 V DC power output
	A4	+5VD	O	5 V DC	5 V DC power output
	A5	TCS	I	0/5 V DC	TCS: On/Off
	A6	GND	-	-	Ground
	A7	DEVP0	I	0/5 V DC	Developing unit distinction signal
	A8	+5VD	O	5 V DC	5 V DC power output
	A9	TNS	I	0/5 V DC	TNS: On/Off
	A10	GND	-	-	Ground
	A11	DVUNITN	I	0/5 V DC	Developing unit detection signal
	A12	FUSE_CUT	O	0/5 V DC	Developing unit FUSE CUT signal
	A13	EEDATA	I	0/5 V DC	Developing unit EEPROM DATA signal
	A14	EESCLK	O	0/5 V DC (pulse)	Developing unit EEPROM CLOCK signal
	B1	+24VDR	O	24 V DC	24 V DC power output
	B2	TNFSOL	O	0/24 V DC	TNFSOL: On/Off
	B3	TCDSW	I	0/5 V DC	TCDSW: On/Off
	B4	GND	-	-	Ground
	B5	DRUMP0	I	0/5 V DC	Drum unit distinction signal
	B6	GND	-	-	Ground
	B7	CL	O	0/5 V DC	CL: On/Off
	B8	EEDATA	I	0/5 V DC	Drum unit EEPROM DATA signal
	B9	EESCLK	O	0/5 V DC (pulse)	Drum unit EEPROM CLOCK signal
	B10	GND	-	-	Ground
	B11	DRUNITN	I	0/5 V DC	Drum unit detection signal
	B12	+5VD	O	5 V DC	5 V DC power output
	B13	MCCM_FWD	O	0/24 V DC	MCCM: On/Off
	B14	MCCM_REV	O	0/24 V DC	MCCM: On/Off
<b>YC10</b> Connected to the registration switch, fuser unit, duplex feed clutch, duplex paper conveying switch and cooling fan motor 8 to 13	A1	GND	-	-	Ground
	A2	RSW	O	0/5 V DC	RSW: On/Off
	A3	+5VD	O	5 V DC	5 V DC power output
	A4	FUSER P0	I	0/5 V DC	Fuser unit distinction signal
	A5	3VD	O	3.3 V DC	3.3 V DC power output
	A6	FTH1	I	0 to 5 V DC	FTH1 detection voltage signal
	A7	FUSE CUT	O	0/5 V DC	FTH1 FUSE CUT signal
	A8	GND	-	-	Ground
	A9	GND	-	-	Ground
	A10	FTH2 STD	I	0 to 5 V DC	FTH2 detection voltage signal
	A11	FTH2	I	0 to 5 V DC	FTH2 detection voltage signal
	B1	+24VDR	O	24 V DC	24 V DC power output
	B2	DUPFCL	O	0/24 V DC	DUPFCL: On/Off
	B3	GND	-	-	Ground
	B4	DUPPCSW	I	0/5 V DC	DUPPCSW: On/Off
	B5	+5VD	O	5 V DC	5 V DC power output
	B6	GND	-	-	Ground

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC10</b> Connected to the registration switch, fuser unit, duplex feed clutch, duplex paper conveying switch and cooling fan motor 8 to 13	B7	CFM11,12,13	O	0/24 V DC	CFM11,12,13: On/Off
	B8	DUP P0	I	0/5 V DC	Duplex unit distinction signal
	B9	+24VDR	O	24 V DC	24 V DC power output
	B10	CFM8,9,10	O	0/24 V DC	CFM8,9,10: On/Off
	B11	NC	-	-	Not used
<b>YC11</b> Connected to the drive motor, paper feed motor, feed clutch 1 and feed switch 1	1	R24VDR	O	24 V DC	24 V DC power output
	2	R24VDR	O	24 V DC	24 V DC power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	+5VD	O	5 V DC	5 V DC power output
	6	+5VD	O	5 V DC	5 V DC power output
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	DM_ON	O	0/24 V DC	DM: On/Off
	10	PFM_ON	O	0/24 V DC	PFM: On/Off
	11	DM_LOCK	I	0/5 V DC	DM LOCK signal
	12	PFM_LOCK	I	0/5 V DC	PFM LOCK signal
	13	DM_CLK	O	0/5 V DC (pulse)	DM CLOCK signal
	14	FCL1	O	0/24 V DC	FCL1: On/Off
	15	+24VDR	O	24 V DC	24 V DC power output
	16	GND	-	-	Ground
	17	FSW1	I	0/5 V DC	FSW1: On/Off
	18	+5VD	O	5 V DC	5 V DC power output
<b>YC12</b> Connected to the Upper and lower paper size width switches	1	+24VDR	O	24 V DC	24 V DC power output
	2	+24VUP	I	24 V DC	24 V DC power input
	3	PWSW-U0	I	0/5 V DC	PWSW-U: On/Off
	4	PWSW-U1	I	0/5 V DC	PWSW-U: On/Off
	5	PWSW-U2	I	0/5 V DC	PWSW-U: On/Off
	6	GND	-	-	Ground
	7	+24VDR	O	24 V DC	24 V DC power output
	8	+24VLO	I	24 V DC	24 V DC power input
	9	PWSW-L0	I	0/5 V DC	PWSW-L: On/Off
	10	PWSW-L1	I	0/5 V DC	PWSW-L: On/Off
	11	PWSW-L2	I	0/5 V DC	PWSW-L: On/Off
	12	GND	-	-	Ground

Connector	Pin No.	Signal	I/O	Voltage	Description
Connected to the feed switch 2/3, feed clutch 2/3, left cover 2 switch, upper/lower lift motors, lower lift motor, upper/lower paper size length switches, upper/lower lift limit switches and upper/lower paper switches	A1	GND	-	-	Ground
	A2	FSW3	I	0/5 V DC	FSW3: On/Off
	A3	+5VD	O	5 V DC	5 V DC power output
	A4	R24VDR	O	24 V DC	24 V DC power output
	A5	FCL3	O	0/24 V DC	FCL3: On/Off
	A6	GND	-	-	Ground
	A7	FSW2	I	0/5 V DC	FSW2: On/Off
	A8	+5VD	O	5 V DC	5 V DC power output
	A9	GND	-	-	Ground
	A10	LC2SW	I	0/5 V DC	LC2SW: On/Off
	A11	+24VDR	O	24 V DC	24 V DC power output
	A12	FCL2	O	0/24 V DC	FCL2: On/Off
	A13	LM-U SW2	I	0/5 V DC	LM-U SW2: On/Off
	A14	GND	-	-	Ground
	A15	LM-U SW1	I	0/5 V DC	LM-U SW1: On/Off
	A16	GND	-	-	Ground
	A17	LM-U REM	O	0/24 V DC	LM-U: On/Off
	A18	GND	-	-	Ground
	A19	PLSW-L	I	0/5 V DC	PLSW-L: On/Off
	B1	GND	-	-	Ground
	B2	PLSW-U	I	0/5 V DC	PLSW-U: On/Off
	B3	LM-L SW2	I	0/5 V DC	LM-L SW2: On/Off
	B4	GND	-	-	Ground
	B5	LM-L SW1	I	0/5 V DC	LM-L SW1: On/Off
	B6	GND	-	-	Ground
	B7	LM-L REM	O	0/24 V DC	LM-L: On/Off
	B8	GND	-	-	Ground
	B9	LICSW-U	I	0/5 V DC	LICSW-U: On/Off
	B10	+5VD	O	5 V DC	5 V DC power output
	B11	GND	-	-	Ground
	B12	PSW-U	I	0/5 V DC	PSW-U: On/Off
	B13	+5VD	O	5 V DC	5 V DC power output
	B14	GND	-	-	Ground
	B15	LICSW-L	I	0/5 V DC	LICSW-L: On/Off
	B16	+5VD	O	5 V DC	5 V DC power output
	B17	GND	-	-	Ground
	B18	PSW-L	I	0/5 V DC	PSW-L: On/Off
	B19	+5VD	O	5 V DC	5 V DC power output

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC14</b> Connected to the feed-shift solenoid, feedshift switch, eject switch, cooling fan motor 5, left cover 1 switch, upper/lower paper feed clutches, humidity sensor eject motor	A1	FSSOL2	O	0/24 V DC	FSSOL: On/Off (return)
	A2	FSSOL1	O	0/24 V DC	FSSOL: On/Off (activate)
	A3	+24VDR	O	24 V DC	24 V DC power output
	A4	GND	-	-	Ground
	A5	FSSW	I	0/5 V DC	FSSW: On/Off
	A6	+5VD	O	5 V DC	5 V DC power output
	A7	GND	-	-	Ground
	A8	NC	-	-	Not used
	A9	+5VD	O	5 V DC	5 V DC power output
	A10	GND	-	-	Ground
	A11	ESW	I	0/5 V DC	ESW: On/Off
	A12	+5VD	O	5 V DC	5 V DC power output
	A13	CFM5	O	0/24 V DC	CFM5: On/Off
	A14	GND	-	-	Ground
	A15	GND	-	-	Ground
	A16	LC1SW	I	0/5 V DC	LC1SW: On/Off
	B1	PFCL-U	O	0/24 V DC	PFCL-U: On/Off
	B2	+24VDR	O	24 V DC	24 V DC power output
	B3	+24VDR	O	24 V DC	24 V DC power output
	B4	PFCL-L	O	0/24 V DC	PFCL-L: On/Off
	B5	+24VDR	O	24 V DC	24 V DC power output
	B6	RCL	O	0/24 V DC	RCL: On/Off
	B7	+3VD	O	3.3 V DC	3.3 V DC power output
	B8	HUMS	I	0 to 5 V DC	HUMS detection voltage signal
	B9	GND	-	-	Ground
	B10	THOUT	I	0 to 5 V DC	Thermistor detection voltage signal
	B11	EM_B	O	0/24 V DC (pulse)	EM drive control signal
	B12	EM_B	O	0/24 V DC (pulse)	EM drive control signal
	B13	EM_A	O	0/24 V DC (pulse)	EM drive control signal
	B14	EM_A	O	0/24 V DC (pulse)	EM drive control signal
	B15	NC	-	-	Not used
	B16	NC	-	-	Not used
<b>YC15</b> Connected to the total counter, optional key card and optional key counter	1	+24VDR	O	24 V DC	24 V DC power output
	2	T_COUNT	O	0/5 V DC	Total counter signal
	3	GND	-	-	Ground
	4	SET SIG	I	0/5 V DC	Connection signal
	5	GND	-	-	Ground
	6	SET SIG	I	0/5 V DC	Key counter connection signal
	7	+24VDR	O	24 V DC	24 V DC power output
	8	K_COUNT	O	0/5 V DC	Key counter signal
	9	GND	-	-	Ground
	10	SET SIG	I	0/5 V DC	Connection signal

Connector	Pin No.	Signal	I/O	Voltage	Description
<b>YC16</b> Connected to the optional built-in finisher	1	+24VDR	O	24 V DC	24 V DC power output
	2	+24VDR	O	24 V DC	24 V DC power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	+5VD	O	5 V DC	5 V DC power output
	6	GND	-	-	Ground
	7	SELECT	O	0/5 V DC	Built-in finisher SELECT signal
	8	READY	I	0/5 V DC	Built-in finisher READY signal
	9	SDI	I	0/5 V DC (pulse)	Built-in finisher serial communication data signal
	10	SDO	O	0/5 V DC (pulse)	Built-in finisher serial communication data signal
	11	SCLK	O	0/5 V DC (pulse)	Built-in finisher CLOCK signal
	12	NC	-	-	Not used
<b>YC17</b> Connected to the optional job separator	1	JBESW	I	0/5 V DC	JBESW: On/Off
	2	+5VD	O	5 V DC	5 V DC power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	SET SIG	I	0/5 V DC	Job separator connection signal
	6	GND	-	-	Ground
	7	EPDSW	I	0/5 V DC	EPDSW: On/Off
	8	+5VD	O	5 V DC	5 V DC power output
	9	LED REM	O	0/5 V DC	LED: On/Off
	10	+5VD LED	O	5 V DC	5 V DC power output
	11	FSSOL2	O	0/24 V DC	FSSOL: On/Off (return)
	12	FSSOL1	O	0/24 V DC	FSSOL: On/Off (activate)
	13	+24VDR	O	24 V DC	24 V DC power output
<b>YC20</b> Connected to the main PWB	1	SCKN	I	0/5 V DC (pulse)	CLOCK signal
	2	EGSI	I	0/5 V DC (pulse)	Serial communication data signal
	3	EGSO	O	0/5 V DC (pulse)	Serial communication data signal
	4	SBSY	O	0/5 V DC	SBSY signal
	5	SDIR	O	0/5 V DC	SDIR signal
	6	EGIRN	O	0/5 V DC	EGIRN signal
	7	OUTPEN	O	0/5 V DC	OUTPEN signal
	8	PVSYNC	O	0/5 V DC (pulse)	PVSYNC signal
	9	+5VD	O	5 V DC	5 V DC power output
	10	SGND	-	-	Ground
	11	SGND	-	-	Ground
	12	LDON	O	0/5 V DC	LDON signal
	13	PRST	I	0/5 V DC	PRST signal
	14	PMD	I	0/5 V DC	PMD signal
	15	HLDENG	I	0/5 V DC	HLDENG signal

## Maintenance parts list

Maintenance part name		Part No.	Alternative part No.	Fig. No.	Ref. No.
Name used in service manual	Name used in parts list				
Upper/lower paper feed pulley	PULLEY,PAPER FEED	2AR07220	-	4	2
Upper/lower separation pulley	PULLEY,SEPARATION	2AR07230	-	4	3
Upper/lower forwarding pulley	PULLEY FEED A	2BJ06010	-	4	5
MP paper feed pulley	UPPER PULLEY,BYPASS	61706770	-	11	49
MP separation pulley	PULLEY,SEPARATION	2AR07230	-	11	2
MP forwarding pulley	PULLEY FEED A	2BJ06010	-	11	6
MP feed roller 1	ROLLER2 BYPASSFEED	302BL06541	2BL06541	12	13
MP feed roller 2	ROLLER4 BYPASSFEED	302BL06561	2BL06561	12	14
MP feed pulley	RIGHT PULLEY,FEED	33906660	-	12	22
Left registration roller	ROLLER REGIST	2FG16021	-	7	35
Right registration roller	RIGHT ROLLER REGIST	302FG06211	2FG06211	5	51
Feed pulley	PULLEY FEED	2BL16080	-	6/7	47/19
Feed roller 1	PULLEY MIDDLE FEED A	302GR06010	2GR06010	5	72
Feed roller 1	PULLEY MIDDLE FEED B	302GR06020	2GR06020	5	73
Feed roller 2	ROLLER B FEED	302BL06081	2BL06081	5	22
Feed roller 3	ROLLER C FEED	302BL06091	2BL06091	5	23
Registration switch	SWITCH REGISTRATION	2FG27110	-	5	46
Left registration cleaner	UNDER CLEANER REGIST	2BL07950	-	7	15
Registration guide	GUIDE REGIST F	2BL16130	-	7	22
Right registration cleaner	PARTS,REGISTRATION CLEAN	2BL93450	-	5	44
Laser scanner unit	LK-710	302GR93090	2GR93090	13	1
Platen	PARTS CONTACT GLASS (M) ASSY	302GR93310	2GR93310	10	1
Platen	PARTS CONTACT GLASS (I) ASSY	302GR93320	2GR93320	10	1
Slit glass	PARTS CONTACT GLASS DP ASSY	302GR94380	2GR94380	10	2
Mirror 1	MIRROR A	2FB12140	-	9	25
Mirror 2 and mirror 3	MIRROR B	302GR17280	2GR17280	9	17
Reflector	REFLECTOR SCANNER	302GR17250	2GR17250	9	27
Exposure lamp	PARTS,LAMP SCANNER SP	302GR94330	2GR94330	9	32
Original size detection switch	SENSOR ORIGINAL	2C927090	-	9	44
Transfer roller unit	TR-710	302GR93280	2GR93280	7	A02
Developing unit	DV-715	302GR93030	2GR93030	14	1
Drum unit	DK-715 (30 ppm)	302GN93010	2GN93010	16	A01
Drum unit	DK-716 (40/50 ppm)	302GR93040	2GR93040	16	A01
Main charger unit	MC-710	302GR93070	2GR93070	16	13
Drum separation claw	PARTS CLAW SEPARATION ASSY	302GR93190	2GR93190	16	14
Fuser unit	FK-715 U	302GR93050	2GR93050	15	A01
Fuser unit	FK-715 E	302GR93060	2GR93060	15	A01
Heat roller	PARTS,ROLLER HEAT SP	302GR94270	2GR94270	15	32
Heat roller separation claw	CLAW HEAT ROLLER	2BL20080	-	15	1
Press roller	PARTS,ROLLER PRESS SP	302GR94280	2GR94280	15	A02
Press roller separation claw	CLAW PRESS ROLLER	2BL20350	-	6	34

Maintenance part name		Part No.	Alternative part No.	Fig. No.	Ref. No.
Name used in service manual	Name used in parts list				
Upper duplex feed roller	ROLLER DU FEED UP	2BL07020	-	7	4
Lower duplex feed roller	ROLLER DU FEED LOW	2BL07030	-	7	5
Duplex feed pulley	PULLEY DU	2BL07040	-	7	6
Eject roller	ROLLER EXIT	302BL21021	2BL21021	8	24
Switchback roller	ROLLER FEED SHIFT	302BL21031	2BL21031	8	25
Eject pulley	PULLEY EXIT C	2BL21520	-	8	22
Eject pulley	PULLEY EXIT	302GR28060	2GR28060	8	32
Switchback pulley	PULLEY FEED SHIFT	2BL21330	-	6	36
Dust filter 1	PARTS FILTER DUST F1 ASSY	302GR94430	2GR94430	13	13
Dust filter 1	PARTS FILTER DUST F2 ASSY	302GR94440	2GR94440	13	14

**Periodic maintenance procedures**

Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Test copy and test print	Perform at the maximum copy size	Test copy	Every service		



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Paper feed section	Upper/lower paper feed pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-2
	Upper/lower separation pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-2
	Upper/lower forwarding pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-2
	MP paper feed pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-4
	MP separation pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-4
	MP forwarding pulley	Replace	400K (30) 500K (40/50)	Replace.*	P.1-5-4
	MP feed roller 1	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	MP feed pulley	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	MP feed roller 2	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Left registration roller	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Right registration roller	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Feed pulley	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Feed roller 1	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Feed roller 2	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Feed roller 3	Clean	400K (30) 500K (40/50)	Clean with alcohol.*	
	Registration switch	Clean	400K (30) 500K (40/50)	Clean with a dry cloth.	
	Left registration cleaner	Replace	400K (30) 500K (40/50)	Replace.	P.1-5-9
	Registration guide	Replace	400K (30) 500K (40/50)	Replace.	
	Right registration cleaner	Replace	400K (30) 500K (40/50)	Replace.	P.1-5-9

\*Check and clean with alcohol when user call occurs.



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Optical section	Laser scanner unit	Check or clean	User call	Clean the shield glass with a dry cloth.	P.1-5-21
	Platen	Clean	400K (30) 500K (40/50)	Clean with alcohol and then a dry cloth.	
	Slit glass	Clean	400K (30) 500K (40/50)	Clean with a dry cloth or alcohol.	
	Mirror 1	Clean	User call	Clean with alcohol and then a dry cloth only if vertical black lines appear on the copy image.	
	Mirror 2 and mirror 3	Clean	User call	Clean with alcohol and then a dry cloth only if vertical black lines appear on the copy image.	
	Lens	Clean	User call	Clean with a dry cloth only if vertical black lines appear on the copy image.	
	Reflector	Clean	User call	Clean with a dry cloth only if vertical black lines appear on the copy image.	
	Exposure lamp	Check or replace	User call	Replace if an image problem occurs.	P.1-5-11
	Optical rail	Grease	User call	Check noise and shifting and then apply scanner rail grease EM-50L.	
	Original size detection sensor	Check or clean	User call	Clean the sensor emitter and sensor receiver with alcohol or a dry cloth only if there is a problem.	



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Transfer/separation section	Transfer roller unit	Replace	400K (30) 500K (40/50)	Replace. (Clean when user call occurs.)	P.1-5-27



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Developing section	Developing unit	Replace	400K (30) 500K (40/50)	Replace. (Check and replace when user call occurs.)	P.1-5-26



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Main charging/drum section	Drum unit	Replace	400K (30) 500K (40/50)	Replace. (Check and replace when user call occurs.)	P.1-5-24
	Main charger unit	Clean	User call	Clean with a wet cloth and then a dry cloth.	P.1-5-25
	Drum separation claw	Check or replace	User call	Replace if the leading edge of the claws are damaged.	



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Fuser section	Fuser unit	Replace	400K (30) 500K (40/50)	Replace. (Check and replace when user call occurs.)	P.1-5-28
	Heat roller	Check or replace	User call	Check and replace when user call occurs.	P.1-5-32
	Heat roller separation claw	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and replace when user call occurs.)	P.1-5-29
	Press roller	Check or replace	User call	Check and replace when user call occurs.	P.1-5-30
	Press roller separation claw	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and replace when user call occurs.)	



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Eject section	Eject roller	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and clean with alcohol when user call occurs.)	
	Eject pulley	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and clean with alcohol when user call occurs.)	
	Switchback roller	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and clean with alcohol when user call occurs.)	
	Switchback pulley	Clean	400K (30) 500K (40/50)	Clean with alcohol. (Check and clean with alcohol when user call occurs.)	

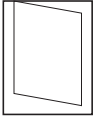
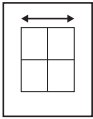
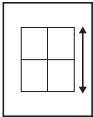
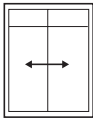
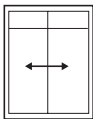
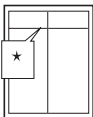
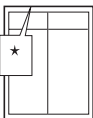

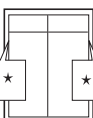
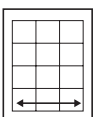


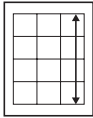
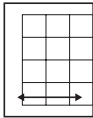

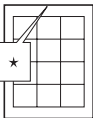
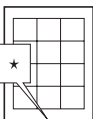
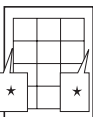
Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Covers	Covers	Clean	Every service	Clean with alcohol or a dry cloth.	
	Dust filter 1	Clean	Every service	Vacuum.	
	Dust filter 2	Clean	Every service	Vacuum.	



Section	Maintenance part/location	Method	Maintenance cycle	Points and cautions	Page
Other	Image quality	Check and adjust	Every service		

Chart of image adjustment procedures

Adjusting order	Item	Image	Description	Maintenance mode		Original	Page	Remarks
				Item No.	Mode			
①	Adjusting the lateral squareness (printing adjustment)		Adjusting the skew of the laser scanner unit (printing adjustment)			U993 (PG2) Test chart	P.1-5-23	
②	Adjusting the magnification in the main scanning direction (printing adjustment)		Polygon motor speed adjustment	U053	POLYGON MOTOR	U053 test pattern	P.1-3-21	
③	Adjusting the magnification in the auxiliary scanning direction (printing adjustment)		Drive motor speed adjustment	U053	MAIN MOTOR	U053 test pattern	P.1-3-21	
④	Adjusting the center line (printing adjustment)		Adjusting the LSU print start timing	U034	LSU OUT LEFT	U034 test pattern	P.1-3-19	
⑤	Adjusting the center line of the cassettes and paper feeder (printing adjustment)		Adjusting the position of the rack adjuster	U034	LSU OUT LEFT	U034 test pattern	-	Adjusts the position of each paper source.
⑥	Adjusting the leading edge registration (printing adjustment)		Registration clutch turning on timing (secondary paper feed start timing)	U034	LSU OUT TOP	U034 test pattern	P.1-3-18	
⑦	Adjusting the leading edge margin (printing adjustment)		LSU illumination start timing	U402	LESD	U402 test pattern	P.1-3-64	
⑧	Adjusting the trailing edge margin (printing adjustment)		LSU illumination end timing	U402	TRAIL TRAIL(DUP) TRAIL(MP)	U402 test pattern	P.1-3-64	To make an adjustment for duplex copying, select TRAIL(DUP). To make an adjustment for MP tray, select TRAIL(MP).
⑨	Adjusting the left and right margins (printing adjustment)		LSU illumination start/end timing	U402	A C	U402 test pattern	P.1-3-64	
⑩	Adjusting magnification of the scanner in the main scanning direction (scanning adjustment)		Data processing	U065 U070	MAIN SCAN ADJ CIS MAIN ADJ	Test chart	P.1-3-23 P.1-3-26	

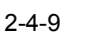
Adjusting order	Item	Image	Description	Maintenance mode		Original	Page	Remarks
				Item No.	Mode			
⑪	Adjusting magnification of the scanner in the auxiliary scanning direction (scanning adjustment)		Original scanning speed	U065 U070	SUB SCAN ADJ CONVEY SPEED/ CIS SUB ADJ	Test chart	P.1-3-23 P.1-3-26	U065: For copying an original placed on the platen. U070: For copying originals from the DP.
⑫	Adjusting the center line (scanning adjustment)		Adjusting the original scan data (image adjustment)	U067 U072	ADJUST DATA1/2 ADJUST DATA1/2/3	Test chart	P.1-3-25 P.1-3-30	U067: For copying an original placed on the platen. U072: For copying originals from the DP.
⑬	Adjusting the leading edge registration (scanning adjustment)		Original scan start timing (image adjustment)	U066 U071	ADJUST DATA1/2 ADJUST DATA1/2/ 3/4/5	Test chart	P.1-3-24 P.1-3-28	U066: For copying an original placed on the platen. U071: For copying originals from the DP.
⑭	Adjusting the leading edge margin (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403 U404	B MARGIN B MARGIN/ B MARGIN(BACK)	Test chart	P.1-3-65 P.1-3-66	U403: For copying an original placed on the platen. U404: For copying originals from the DP.
⑮	Adjusting the trailing edge margin (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403 U404	D MARGIN D MARGIN/ D MARGIN(BACK)	Test chart	P.1-3-65 P.1-3-66	U403: For copying an original placed on the platen. U404: For copying originals from the DP.
⑯	Adjusting the left and right margins (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403 U404	A MARGIN C MARGIN A MARGIN/ A MARGIN(BACK) C MARGIN/ C MARGIN(BACK)	Test chart	P.1-3-65 P.1-3-66	U403: For copying an original placed on the platen. U404: For copying originals from the DP.

When maintenance item U411 (Adjusting the scanner automatically) is run using the specified original (P/N 302FZ56990), the following adjustments are automatically made:  
 Adjusting the scanner magnification (U065)  
 Adjusting the scanner leading edge registration (U066)  
 Adjusting the scanner center line (U067)

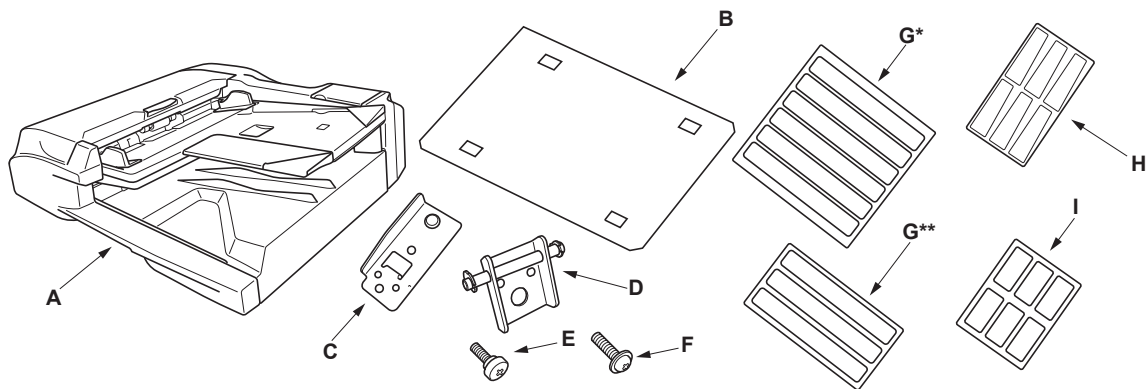
When maintenance item U411 (Adjusting the scanner automatically) is run using the specified original (P/N 2AC68241), the following adjustments are automatically made:  
 Adjusting the DP magnification (U070)  
 Adjusting the DP scanning timing (U071)  
 Adjusting the DP center line (U072)

#### Image quality

Item	Specifications
100% magnification	Machine: $\pm 0.8\%$ Using DP: $\pm 1.5\%$
Enlargement/reduction	Machine: $\pm 1.0\%$ Using DP: $\pm 1.5\%$
Lateral squareness	Machine: $\pm 1.5$ mm/375 mm Using DP: $\pm 2.5$ mm/375 mm
Leading edge registration	Cassette: $\pm 2.5$ mm MP tray: $\pm 2.5$ mm Duplex copying: $\pm 2.5$ mm
Skewed paper feed	Cassette: 1.5 mm or less MP tray: 1.5 mm or less Duplex copying: 2.0 mm or less
Left-right difference	Cassette: $\pm 2.0$ mm MP tray: $\pm 2.0$ mm Duplex mode: $\pm 3.0$ mm
Curling	Simplex mode: 10.0 mm or less Duplex mode: 10.0 mm or less



# **INSTALLATION GUIDE FOR THE DOCUMENT PROCESSOR**



## English

### Supplied parts

A DP	1
B Original mat	1
C Fixing fitting	2
D Angle control fitting	1
E Pin	3

F M4 × 14TP screw	4
G Label "Operation procedure" (except for 100 V models)	1
*: for metric specification	
** : for inch specification	
H Caution label "Remove original!" (except for 100 V models)	1
I Caution label "Original face up!" (except for 100 V models)	1

## Français

### Pièces fournies

A DP	1
B Plaque d'original	1
C Fixation	2
D Fixation d'angle	1
E Goupille	3

F Vis TP M4 × 14	4
G Étiquette relative à la procédure d'utilisation (sauf pour les modèles 100 V)	1
*: pour des spécifications métriques	
** : pour des spécifications anglo-saxonnes	
H Étiquette d'avertissement relative au retrait de l'original (sauf pour les modèles 100 V)	1
I Étiquette d'avertissement relative à l'orien- tation vers le haut de la face de l'original (sauf pour les modèles 100 V)	1

## Español

### Piezas suministradas

A DP	1
B Alfombrilla para originales	1
C Herraje de fijación	2
D Herraje de control de ángulo	1
E Pasador	3

F Tornillo TP M4 × 14	4
G Etiqueta "Procedimiento operativo" (excepto para modelos de 100 V)	1
*: para especificaciones en el sistema métrico	
** : para especificaciones en el sistema de pulgadas	
H Etiqueta de precaución "Retire original" (excepto para los modelos de 100 V)	1
I Etiqueta de precaución "Original cara arriba" (excepto para los modelos de 100 V)	1

## Deutsch

### Gelieferte Teile

A DP	1
B Originalmatte	1
C Befestigungshalterung	2
D Winkeleinstellbefestigung	1
E Stift	3

F M4 × 14TP Schraube	4
G Schild "Funktionsanweisung" (außer 100 V-Modelle)	1
*: für metrische Angaben	
** : für Angaben in Zoll	
H Warnschild "Original entfernen" (außer 100 V-Modelle)	1
I Warnschild "Originalschriftseite nach oben" (außer 100 V-Modelle)	1

## Italiano

### Parti fornite

A DP	1
B Tappetino originale	1
C Accessorio di fissaggio	2
D Accessorio di regolazione angolare	1
E Perno	3

F Vite M4 × 14TP	4
G Etichetta "Procedura di funzionamento" (eccetto modelli 100 V)	1
*: per specifiche in unità del sistema metrico	
** : per specifiche in pollici	
H Etichetta di avvertimento "Rimuovere origi- nale!" (eccetto modelli 100 V)	1
I Etichetta di avvertimento "Originale rivolto verso l'alto!" (eccetto modelli 100 V)	1

## 简体中文

### 附属部件

A DP	1
B 原稿垫	1
C 固定附件	2
D 角度控制附件	1
E 销	3

F M4 × 14TP 螺钉	4
G 标签“操作步骤”(除 100V 型号)	1
*: 公制规格	
** : 英制规格	
H 注意标签“取出原稿!” (除 100V 型号)	1
I 注意标签“原稿正面朝上!” (除 100V 型号)	1

## 日本語

### 付属品

A DP 本体	1
B 原稿マット	1
C 固定金具	2
D 角度規制金具	1
E ピン	3

F ビス M4 × 14TP	4
G 操作ラベル (100V 仕様以外)	1
*: センチ仕様	
** : インチ仕様	
H 原稿忘れラベル (100V 仕様以外)	1
I 原稿表向きラベル (100V 仕様以外)	1

### Installation Procedure

When installing the DP, be sure to turn the MFP power off and disconnect the power plug from the wall outlet.

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### Méthode d'installation

Lors de l'installation du DP, veiller à mettre l'interrupteur du MFP hors tension et à débrancher la fiche d'alimentation de la prise murale.

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### Procedimiento de instalación

Cuando instale el DP, asegúrese de apagar el interruptor principal del MFP y desenchúfelo del tomacorriente de la pared.

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### Installationsverfahren

Schalten Sie vor Installation des DP unbedingt den MFP-Hauptschalter aus, und ziehen Sie den Netzstecker aus der Steckdose.

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### Istruzioni per il montaggio

Spegnere l'interruttore principale e sfilare la spina dell'MFP dalla presa prima di installare il DP.

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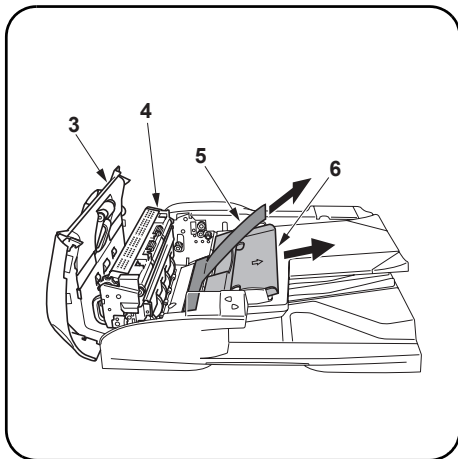
### 安装步骤

安装 DP 时，请务必将 MFP 电源关闭，并拔下电源插头再进行安装作业。

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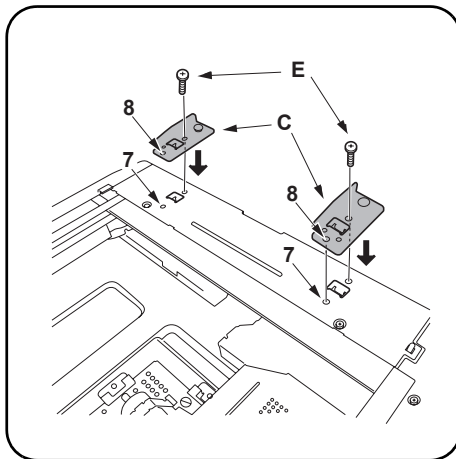
### 取付手順

DP 本体を設置するときは、必ず MFP 本体のメインスイッチを OFF にし、電源プラグを抜いてから作業すること。



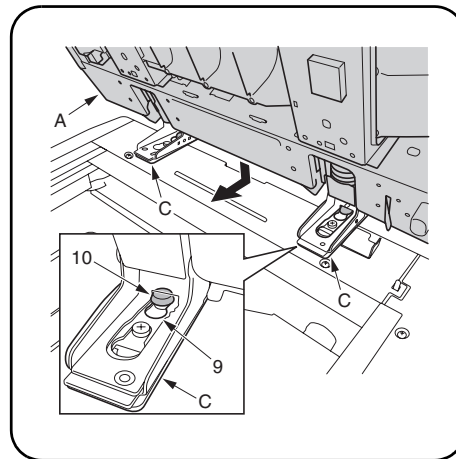
### Remove the film and cushioning material.

1. Remove the fixing tape from the original feed unit cover of DP (A).
2. Open original feed unit cover (3) and carrier unit (4).
3. Remove film (5) and cushioning material (6).



### Attach the fixing fitting.

4. Align MFP projection (7) with hole (8) of fixing fitting (C) and insert fixing fitting (C) into the MFP.
5. Secure fixing fitting (C) with two pins (E).



### Install the DP.

6. Align hinge hole (9) of DP (A) with pin (10) of fixing fitting (C), place DP (A) on the MFP.
7. Slide DP (A) to ward the front side.

### Retirer le film et la garniture d'emballage.

1. Retirer la bande adhésive de fixation du couvercle de l'unité d'alimentation d'original du DP (A).
2. Ouvrir le couvercle de l'unité d'alimentation d'original (3) et sortir l'unité de support (4).
3. Retirer le film (5) et la garniture d'emballage (6).

### Mettre en place la fixation.

4. Aligner la saillie du MFP (7) sur le trou (8) de la fixation (C) et insérer cette dernière dans le MFP.
5. Attacher la fixation (C) à l'aide des deux goupilles (E).

### Installer le DP.

6. Aligner le trou de la charnière (9) du DP (A) sur la goupille (10) de la fixation (C) et placer le DP (A) sur le MFP.
7. Faire glisser le DP (A) vers l'avant.

### Retire la película y el material amortiguador.

1. Quite la cinta adhesiva de la cubierta de la unidad de alimentación de originales del DP (A).
2. Abra la cubierta de la unidad de alimentación de originales (3) y la unidad del carro (4).
3. Retire la película (5) y el material amortiguador (6).

### Monte el herraje de fijación.

4. Alinee el saliente del MFP (7) con el orificio (8) del herraje de fijación (C) e inserte el herraje de fijación (C) en el MFP.
5. Asegure el herraje de fijación (C) con dos pasadores (E).

### Instale el DP.

6. Alinee el orificio de bisagra (9) del DP (A) con el pasador (10) del herraje de fijación (C) y coloque el DP (A) en el MFP.
7. Deslice el DP (A) hacia el lado delantero.

### Entfernen des Films und des Polstermaterials.

1. Das Befestigungsband von der Abdeckung der Originalzufuhreinheit des DP (A) abnehmen.
2. Abdeckung der Originalzufuhreinheit (3) und der Trägereinheit (4) öffnen.
3. Film (5) und Polstermaterial (6) abnehmen.

### Anbringen der Befestigungshalterung.

4. MFP-Projektion (7) mit Loch (8) der Befestigungshalterung (C) ausrichten und Befestigungshalterung (C) in den MFP einsetzen.
5. Befestigungshalterung (C) mit zwei Stiften (E) befestigen.

### Installieren des DP.

6. Scharnierloch (9) des DP (A) mit Stift (10) der Befestigungshalterung (C) ausrichten, und DP (A) auf den MFP stellen.
7. DP (A) nach vorne schieben.

### Rimozione della pellicola e del materiale antiurto.

1. Rimuovere il nastro di fissaggio dal coperchio dell'unità di alimentazione originali del DP (A).
2. Aprire il coperchio dell'unità di alimentazione originali (3) e il trasportatore (4).
3. Rimuovere la pellicola (5) e il materiale antiurto (6).

### Applicazione dell'accessorio di fissaggio.

4. Allineare la sporgenza dell'MFP (7) con il foro (8) dell'accessorio di fissaggio (C), quindi inserire l'accessorio di fissaggio (C) nell'MFP.
5. Assicurare l'accessorio di fissaggio (C) con due perni (E).

### Montaggio del DP.

6. Allineare il foro della cerniera (9) del DP (A) con il perno (10) dell'accessorio di fissaggio (C), quindi posizionare il DP (A) sull'MFP.
7. Fare scorrere il DP (A) verso la parte anteriore.

### 拆下薄膜和弹性垫料。

1. 从 DP (A) 的原稿送稿组件盖板上拆下固定胶带。
2. 打开原稿送稿组件盖板 (3) 和夹持器组件 (4)。
3. 拆下薄膜 (5) 和弹性垫料 (6)。

### 安装固定附件。

4. 将 MFP 突出部 (7) 对准固定附件 (C) 的孔 (8) 并将固定附件 (C) 插入 MFP。
5. 用两颗销 (E) 将固定附件 (C) 固定。

### 安装 DP。

6. 将 DP (A) 的铰链孔 (9) 对准固定附件 (C) 的销 (10)，并将 DP (A) 放在 MFP 上。
7. 将 DP (A) 滑向正面。

### フィルム / 緩衝材の取り外し

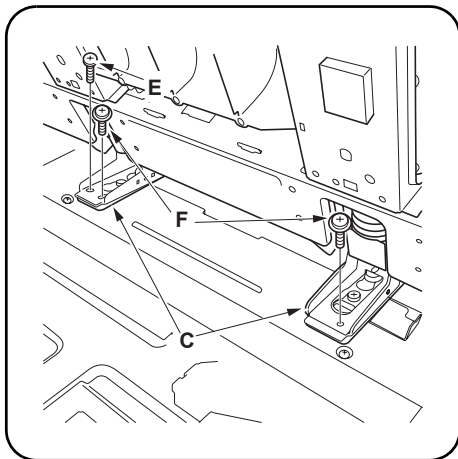
1. DP 本体 (A) の原稿送り装置カバーの固定テープを剥がす。
2. 原稿送り装置カバー (3) と搬送ユニット (4) を開く。
3. フィルム (5) と緩衝材 (6) を取り除く。

### 固定金具の取り付け

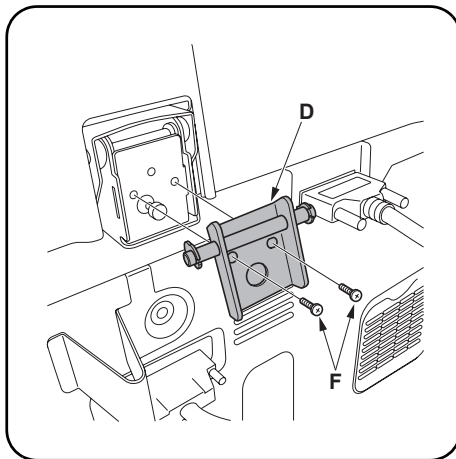
4. MFP 本体の突起 (7) と固定金具 (C) の穴 (8) を合わせ、MFP 本体に固定金具 (C) を差し込む。
5. ピン (E) 2 本で固定金具 (C) を固定する。

### DP 本体の取り付け

6. DP 本体 (A) のヒンジ部の穴 (9) と固定金具 (C) のピン (10) を合わせ、MFP 本体に DP 本体 (A) を乗せる。
7. DP 本体 (A) を手前にスライドさせる。



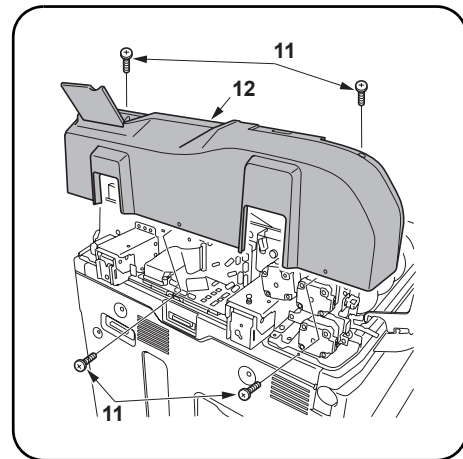
8. Install DP (A) onto the MFP securely with pin (E) and two M4 x 14TP screws (F).



**Install the angle control fitting.**

**To adjust DP open-close angle 60 degrees**

9. Install angle control fitting (D) at the rear side of the right hinge with two M4 x 14TP screws (F).



**To adjust DP open-close angle 30 degrees**

10. Remove four screws (11) and then remove rear cover (12) of DP (A).

8. Installer le DP (A) sur le MFP en le fixant à l'aide de la goupille (E) et des deux vis TP M4 x 14 (F).

**Installer la fixation d'angle.**

**Pour régler l'angle d'ouverture/de fermeture du DP de 60 degrés**

9. Placer la fixation d'angle (D) à l'arrière de la charnière droite à l'aide des deux vis TP M4 x 14 (F).

**Pour régler l'angle d'ouverture/de fermeture du DP de 30 degrés**

10. Retirer les quatre vis (11), puis le couvercle arrière (12) du DP (A).

8. Instale el DP (A) firmemente en el MFP con el pasador (E) y dos tornillos TP M4 x 14 (F).

**Instale el herraje de control de ángulo. Para ajustar el DP, abra o cierre el ángulo 60 grados**

9. Instale el herraje de control de ángulo (D) en el lado trasero de la bisagra derecha con dos tornillos TP M4 x 14 (F).

**Para ajustar el DP, abra o cierre el ángulo 30 grados**

10. Saque cuatro tornillos (11) y retire la cubierta trasera (12) del DP (A).

8. DP (A) sicher mit einem Stift (E) und zwei M4 x 14TP Schrauben (F) am MFP befestigen.

**Installieren der Winkeleinstellbefestigung.**

**Einstellen des Öffnungs-/Schließungswinkels des DP um 60 Grad**

9. Winkeleinstellbefestigung (D) an der Rückseite des rechten Scharniers mit zwei M4 x 14TP Schrauben (F) befestigen.

**Einstellen des Öffnungs-/Schließungswinkels des DP um 30 Grad**

10. Vier Schrauben (11) abnehmen und dann die Rückabdeckung (12) des DP (A) abnehmen.

8. Montare il DP (A) sull'MFP assicurandolo con il perno (E) e due viti M4 x 14TP (F).

**Montaggio dell'accessorio di regolazione angolare.**

**Per regolare l'angolo di chiusura / apertura del DP a 60 gradi**

9. Montare l'accessorio di regolazione angolare (D) sul lato posteriore della cerniera destra con due viti M4 x 14TP (F).

**Per regolare l'angolo di chiusura / apertura del DP a 30 gradi**

10. Rimuovere quattro viti (11), quindi rimuovere il coperchio posteriore (12) del DP (A).

8. 用销 (E) 和两颗 M4 x 14TP 螺钉 (F) 将 DP (A) 安装到 MFP 上。

**安装角度控制附件。**

**若要将 DP 的开关角度调整为 60 度**

9. 在右部铰链的后部使用两颗 M4 x 14TP 螺钉 (F) 安装角度控制附件 (D)。

**若要将 DP 的开关角度调整为 30 度**

10. 拆下 4 颗螺钉 (11)，然后拆下 DP (A) 的后盖板 (12)。

8. ピン (E) 1 本とビス M4 x 14TP (F) 2 本で DP 本体 (A) を MFP 本体に固定する。

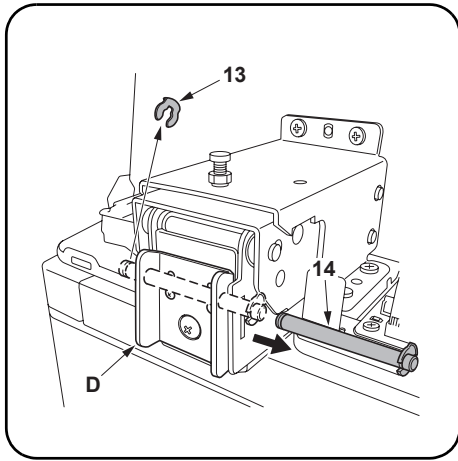
**角度規制金具の取り付け**

**DP 開閉角度を 60 度に設定する場合**

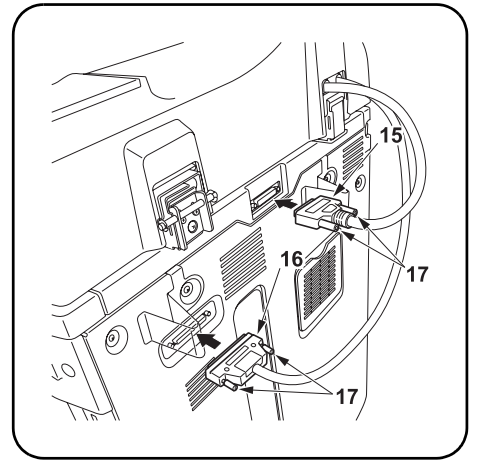
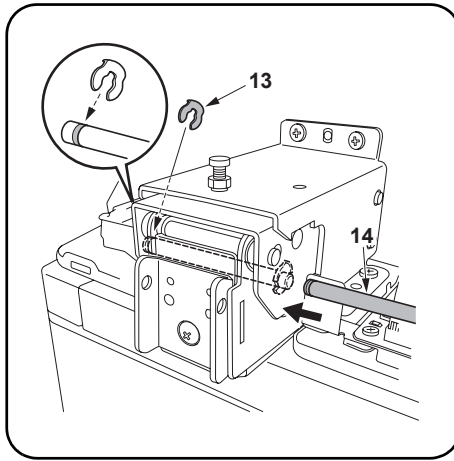
9. 右ヒンジ後側にビス M4 x 14TP (F) 2 本で角度規制金具 (D) を取り付け。

**DP 開閉角度を 30 度に設定する場合**

10. ビス (11) 4 本を外し、DP 本体 (A) の後カバー (12) を取り外す。



11. Remove stop ring (13) of angle control fitting (D) that has been installed in step 12 to remove shaft (14).
12. Insert shaft (14) into the rear side of the right hinge.
13. Attach stop ring (13) to the notch of shaft (14) and secure shaft (14).
14. Reinstall rear cover (12) that has been removed in step 10, with four screws (11).



#### Connect the signal lines.

15. Connect control signal line (15) of DP (A) and data signal line (16) to the MFP.
16. Turn fixing knobs (17) at the both sides of the connector clockwise to secure the signal lines.

11. Retirer l'anneau de butée (13) de la fixation d'angle (D) installée à l'étape 12 pour enlever la tige (14).
12. Insérer la tige (14) à l'arrière de la charnière droite.
13. Fixer l'anneau de butée (13) sur l'encoche de la tige (14) et mettre en place la tige (14).
14. Remettre en place le couvercle arrière (12) retiré à l'étape 10 à l'aide des quatre vis (11).

#### Connecter les circuits de transmission.

15. Connecter le circuit de transmission de commande (15) du DP (A) ainsi que celui de données (16) au MFP.
16. Tourner les boutons de fixation (17) de chaque côté du connecteur dans le sens des aiguilles d'une montre pour fixer les circuits de transmission.

11. Retire el anillo de retención (13) del herraje de control de ángulo (D) que se instaló en el paso 12 para retirar el eje (14).
12. Inserte el eje (14) en el lado trasero de la bisagra derecha.
13. Fije el anillo de retención (13) a la muesca del eje (14) y asegure el eje (14).
14. Reinstale la cubierta trasera (12) que ha retirado en el paso 10 con cuatro tornillos (11).

#### Conecte las líneas de señal.

15. Conecte la línea de señal de control (15) del DP (A) y la línea de señal de datos (16) al MFP.
16. Gire los pomos de fijación (17) de ambos lados del conector en sentido horario para asegurar las líneas de señal.

11. Anschlagring (13) von der Winkeleinstellbefestigung (D) abnehmen, die in Schritt 12 montiert wurde, um die Welle (14) zu entfernen.
12. Welle (14) in die Rückseite des rechten Scharniers einsetzen.
13. Anschlagring (13) an der Wellenkerbe (14) anbringen und Welle befestigen (14).
14. Die in Schritt 10 abgenommene Rückabdeckung (12) wieder mit vier Schrauben (11) einbauen.

#### Anschließen der Signalleitungen.

15. Steuersignalleitung (15) von DP (A) und Datensignalleitung (16) an den MFP anschließen.
16. Befestigungshandräder (17) an beiden Seiten des Anschlusses nach rechts drehen, um die Signalleitungen zu befestigen.

11. Rimuovere l'anello di bloccaggio (13) dell'accessorio di regolazione angolare (D) che era stato installato al Punto 12 per rimuovere l'albero (14).
12. Inserire l'albero (14) nella parte posteriore della cerniera destra.
13. Applicare l'anello di bloccaggio (13) nell'incavo dell'albero (14) e assicurare l'albero (14).
14. Rimontare il coperchio posteriore (12) rimosso al Punto 10 con quattro viti (11).

#### Connessione delle linee dei segnali.

15. Connettere la linea del segnale di controllo (15) del DP (A) e la linea del segnale dati (16) all'MFP.
16. Ruotare le rotelle di fissaggio (17) su entrambi i lati del connettore in senso orario, fissando così le linee dei segnali.

11. 拆下在第 9 步中安装的角度控制配件 (D) 的止动环 (13)，以将轴 (14) 拆下。
12. 将轴 (14) 插入到右部铰链的后部。
13. 将止动环 (13) 安装到轴 (14) 的切口并将轴 (14) 固定。
14. 用 4 颗螺钉 (11) 将步骤 10 中拆下的后盖板 (12) 重新安装。

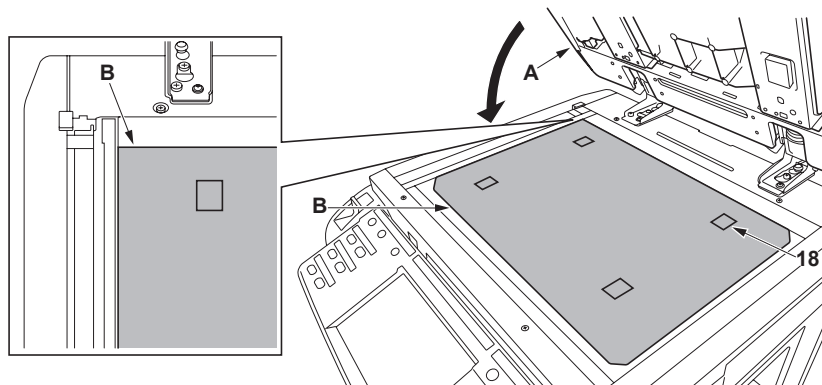
#### 连接信号线。

15. 将 DP (A) 的控制信号线 (15) 和数据信号线 (16) 连接到 MFP。
16. 顺时针旋转连接器两侧的固定旋钮 (17) 将信号线固定。

11. 手順 12 で取り付けけた角度規制金具 (D) のストップリング (13) 1 個を外し、シャフト (14) を取り外す。
12. 右ヒンジ後側にシャフト (14) を挿入する。
13. ストップリング (13) をシャフト (14) の溝に取り付け、シャフト (14) を固定する。
14. 手順 10 で外した後カバー (12) をビス (11) 4 本で元通り取り付け。

#### 信号線の接続

15. DP 本体 (A) の制御信号線 (15) とデータ信号線 (16) を MFP 本体に接続する。
16. コネクタ両側の固定ツマミ (17) を右へ回し固定する。



#### Fasten the original mat.

17. Place original mat (B) with its Velcro (18) upward over the contact glass.

**Align original mat (B) corner that has not been surface cut with the inner left corner of the original instruction panel.**

18. Close DP (A) and attach original mat (B) onto it with Velcro.

#### Fixer la plaque d'original.

17. Placer la plaque d'original (B) sur la vitre d'exposition, en orientant les bandes Velcro (18) vers le haut.

**Aligner le coin de la plaque d'original (B) qui n'est pas découpé sur le coin intérieur gauche du panneau d'instructions de l'original.**

18. Abaisser le DP (A) et y fixer la plaque d'original (B) à l'aide des bandes Velcro.

#### Fije la alfombrilla para originales.

17. Coloque la alfombrilla para originales (B) con el velcro (18) hacia arriba sobre el cristal de contacto.

**Alinee la esquina no cortada de la alfombrilla para originales (B) con la esquina interior izquierda del panel de instrucciones del original.**

18. Cierre el DP (A) y fije la alfombrilla para originales (B) con el velcro.

#### Befestigen der Originalmatte.

17. Die Originalmatte (B) mit dem Klettband (18) nach oben über das Kontaktglas legen.

**Die Ecke der Originalmatte (B), deren Oberfläche nicht ausgeschnitten ist, mit der linken, inneren Kante des Originalbedienfeldes ausrichten.**

18. Den DP (A) schließen und die Originalmatte (B) mit dem Klettband auf ihm befestigen.

#### Fissaggio del tappetino originale.

17. Posizionare il tappetino originale (B) con il velcro (18) rivolto verso l'alto sul vetro di appoggio.

**Allineare l'angolo del tappetino originale (B) non tagliato in superficie con l'angolo interno sinistro del pannello di controllo originale.**

18. Chiudere il DP (A) e applicarvi il tappetino originale (B) con il velcro.

#### 固定原稿墊。

17. 將原稿墊 (B) 放置在壓片玻璃上，使維可牢尼龍搭扣 (18) 向上。

**將未切割表面的原稿墊 (B) 的角對准原稿指示板的內部左角。**

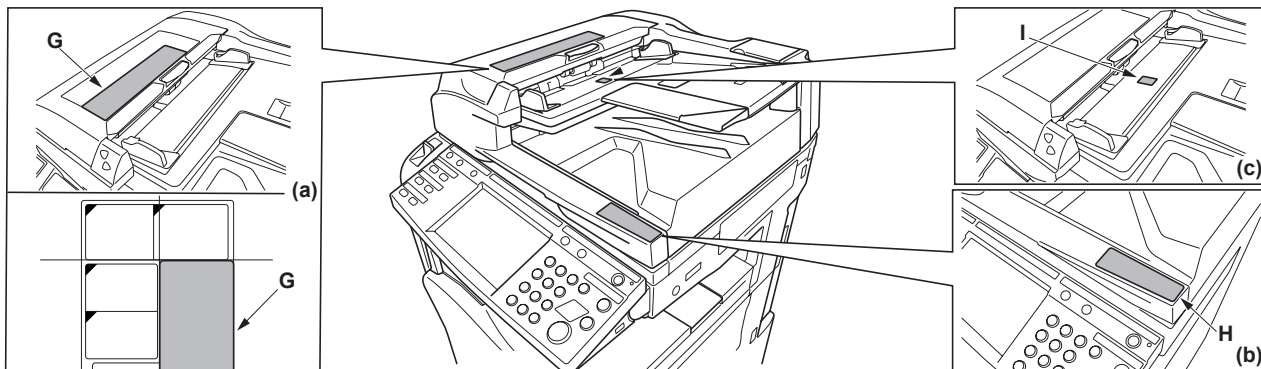
18. 關閉 DP (A) 并用維可牢尼龍搭扣將原稿墊 (B) 安裝在它上面。

#### 原稿マットの貼り付け

17. 原稿マット (B) を、マジックテープ (18) を上に向けてコンタクトガラス上に置く。

**原稿マット (B) は面カットされていない角を原稿指示板の左奥に合わせる。**

18. DP 本体 (A) を下ろし、原稿マット (B) を DP 本体 (A) に貼り付ける。



### Adhere the label "Operation procedure" (except for 100 V models)

19. Clean the label surface of the original feed unit cover with alcohol.
20. Adhere label "Operation procedure" (G) of which the language corresponding to the destination of the MFP on to the existing label of the original feed unit cover. Figure (a)

### Adhere the caution label "Remove original!" (except for 100 V models)

21. Clean the label surface of the original delivery table with alcohol.
22. Adhere caution label "Remove original!" (H) of which the language corresponding to the destination of the MFP on to the label of the original delivery table. Figure (b)

### Adhere the caution label "Original face up!" (except for 100 V models)

23. Clean the label on the original table with alcohol.
24. Adhere caution label "Original face up!" (I) of which the language corresponding to the destination of MFP on to the label of the original table. Figure (c)

### Coller l'étiquette relative à la procédure d'utilisation (sauf pour les modèles 100 V)

19. Nettoyer la surface de l'étiquette du couvercle de l'unité d'alimentation d'original avec de l'alcool.
20. Coller l'étiquette relative à la procédure d'utilisation (G) dans la langue correspondant à la destination du MFP sur l'étiquette déjà apposée sur le couvercle de l'unité d'alimentation d'original. Figure (a)

### Coller l'étiquette d'avertissement relative au retrait de l'original (sauf pour les modèles 100 V)

21. Nettoyer la surface de l'étiquette du plateau de sortie d'original avec de l'alcool.
22. Coller l'étiquette d'avertissement relative au retrait de l'original (H) dans la langue correspondant à la destination du MFP sur l'étiquette du plateau de sortie d'original. Figure (b)

### Coller l'étiquette d'avertissement relative à l'orientation vers le haut de la face de l'original (sauf pour les modèles 100 V)

23. Nettoyer l'étiquette figurant sur le plateau d'original avec de l'alcool.
24. Coller l'étiquette d'avertissement relative à l'orientation vers le haut de la face de l'original (I) dans la langue correspondant à la destination du MFP sur l'étiquette du plateau d'original. Figure (c)

### Pegue la etiqueta "Procedimiento operativo" (excepto para los modelos de 100 V)

19. Limpie con alcohol la superficie de etiquetas de la cubierta de la unidad de alimentación de originales.
20. Pegue la etiqueta "Procedimiento operativo" (G) del idioma correspondiente al destino del MFP sobre la etiqueta existente de la cubierta de la unidad de alimentación de originales. Figura (a)

### Pegue la etiqueta de precaución "Retirar original" (excepto para los modelos de 100 V)

21. Limpie con alcohol la superficie de etiquetas de la cubierta de originales.
22. Pegue la etiqueta de precaución "Retirar original" (H) del idioma correspondiente al destino del MFP sobre la etiqueta de la cubierta de originales. Figura (b)

### Pegue la etiqueta de precaución "Original cara arriba" (excepto para los modelos de 100 V)

23. Limpie con alcohol la etiqueta de la cubierta de originales.
24. Pegue la etiqueta de precaución "Original cara arriba" (I) del idioma correspondiente al destino del MFP sobre la etiqueta de la cubierta de originales. Figura (c)

### Anbringen des Schildes "Funktionsanweisung" (außer 100 V-Modelle)

19. Die Schildoberfläche an der Abdeckung der Originalzufuhreinheit mit Alkohol reinigen.
20. Das Schild "Funktionsanweisung" (G) in der Sprache des Bestimmungsortes des MFP auf das bestehende Schild an der Abdeckung der Originalzufuhreinheit aufkleben. Abbildung (a)

### Anbringen des Warningschildes "Original entfernen" (außer 100 V-Modelle)

21. Die Schildoberfläche am Originalzufuhrschacht mit Alkohol reinigen.
22. Das Warningschild "Original entfernen" (H) in der Sprache des Bestimmungsortes des MFP auf das bestehende Schild am Originalzufuhrschacht aufkleben. Abbildung (b)

### Anbringen des Warningschildes "Originalschriftseite nach oben" (außer 100 V-Modelle)

23. Die Schildoberfläche am Originalzufuhrschacht mit Alkohol reinigen.
24. Das Warningschild "Originalschriftseite nach oben" (I) in der Sprache des Bestimmungsortes des MFP auf das bestehende Schild am Originalzufuhrschacht aufkleben. Abbildung (c)

### Applicazione dell'etichetta "Procedura di funzionamento" (eccetto modelli 100 V)

19. Pulire con alcool la superficie dell'etichetta sul coperchio dell'unità di alimentazione originali.
20. Applicare l'etichetta "Procedura di funzionamento" (G) nella lingua corrispondente alla destinazione dell'MFP sopra l'etichetta del coperchio dell'unità di alimentazione originali. Figura (a)

### Applicazione dell'etichetta di avvertimento "Rimuovere originale!" (eccetto modelli 100 V)

21. Pulire con alcool la superficie dell'etichetta sul piano di ricevimento originali.
22. Applicare l'etichetta di avvertimento "Rimuovere originale!" (H) nella lingua corrispondente alla destinazione dell'MFP sopra l'etichetta del piano di ricevimento originali. Figura (b)

### Applicazione dell'etichetta di avvertimento "Originale rivolto verso l'alto!" (eccetto modelli 100 V)

23. Pulire con alcool l'etichetta sul piano originali.
24. Applicare l'etichetta di avvertimento "Originale rivolto verso l'alto!" (I) nella lingua corrispondente alla destinazione dell'MFP sopra l'etichetta del piano originali. Figura (c)

### 粘貼标签“操作步骤”（除 100V 型号）

19. 用酒精清洁原稿送稿组件盖板的标签表面。
20. 将语言与 MFP 目标对应的标签“操作步骤”（G）粘贴到原稿送稿组件盖板的标签上。图（a）

### 粘貼注意标签“取出原稿！”（除 100V 型号）

21. 用酒精清洁原稿发送台的标签表面。
22. 将语言与 MFP 目标对应的注意标签“取出原稿！”（H）粘贴到原稿发送台的标签上。图（b）

### 粘貼注意标签“原稿正面朝上！”（除 100V 型号）

23. 用酒精清洁原稿台的标签。
24. 将语言与 MFP 目标对应的注意标签“原稿正面朝上！”（I）粘贴到原稿台的标签上。图（c）

### 操作ラベルの貼り付け（100V 仕様以外）

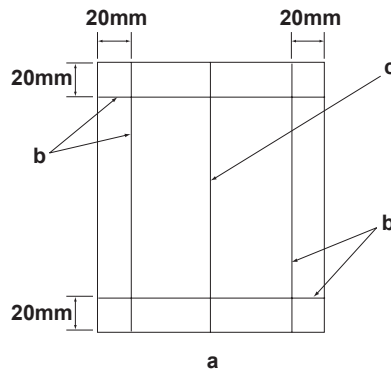
19. 原稿送り装置カバーのラベル上をアルコール清掃する。
20. MFP 本体を使用する国の言語に合った操作ラベル（G）をラベルの上に貼り付ける。図（a）

### 原稿忘れラベルの貼り付け（100V 仕様以外）

21. 原稿排紙テーブルのラベル上をアルコール清掃する。
22. MFP 本体を使用する国の言語に合った原稿忘れラベル（H）をラベルの上に貼り付ける。図（b）

### 原稿表向きラベルの貼り付け（100V 仕様以外）

23. 原稿テーブルのラベル上をアルコール清掃する。
24. MFP 本体を使用する国の言語に合った原稿表向きラベル（I）をラベルの上に貼り付ける。図（c）



#### [Operation check]

1. To check the machine operation, prepare original (a) where 4 lines (b) are drawn 20 mm from the edges of the A3 sheet and 1 line (c) is drawn at its center.
2. Connect the power plug of the MFP into the wall outlet and turn the main power on.
3. Set the original (a) on the DP and perform a test copy to check the operation and the copy example.
4. Compare original (a) with the copy example. If the gap exceeds the reference value, perform the following adjustments according to the type of the gap.

**Check images of the DP after checking and adjusting images of the MFP. For details, see the service manual.**

#### [Vérification du fonctionnement]

1. Pour vérifier le bon fonctionnement de l'appareil, préparer un original (a) sur lequel sont tracées 4 lignes (b) à 20 mm des bords de la feuille A3 et 1 ligne (c) en son axe.
2. Brancher la fiche d'alimentation du MFP sur la prise murale et mettre l'appareil sous tension.
3. Placer l'original (a) sur le DP et effectuer une copie de test pour vérifier le fonctionnement et l'exemple de copie.
4. Comparer l'original (a) avec l'exemple de copie. Si l'écart excède la valeur de référence, effectuer les réglages suivants en fonction du type d'écart.

**Vérifier les images du DP après avoir contrôlé et réglé les images du MFP. Pour plus de détails, se reporter au manuel d'entretien.**

#### [Verifique el funcionamiento]

1. Para comprobar el funcionamiento del aparato, prepare un original (a) que contenga 4 líneas (b) dibujadas a 20 mm de los bordes de la hoja A3 y 1 línea (c) dibujada en el centro.
2. Conecte el enchufe eléctrico del MFP en el tomacorriente de la pared y encienda el interruptor principal.
3. Coloque el original (a) en el DP y haga una copia de prueba para verificar el funcionamiento y el ejemplo de copia.
4. Compare el original (a) con el ejemplo de copia. Si la separación supera el valor de referencia, realice los siguientes ajustes según el tipo de separación.

**Compruebe las imágenes del DP después de comprobar y ajustar las imágenes del MFP. Para más detalles, lea el manual de servicio.**

#### [Funktionsprüfung]

1. Zum Prüfen der Gerätefunktion das Original (a) vorbereiten, auf das 4 Linien (b) 20 mm von den Kanten des A3-Blattes und 1 Linie (c) in der Mitte gezeichnet sind.
2. Den Netzstecker am MFP in die Steckdose stecken und den Strom einschalten.
3. Das Original (a) auf den DP legen und eine Testkopie erstellen, um die Funktion und das Kopierbeispiel zu prüfen.
4. Das Original (a) mit dem Kopierbeispiel vergleichen. Wenn der Abstand größer als der Bezugswert ist, die folgenden Einstellungen gemäß dem Abstandstyp durchführen.

**Die Bilder des DP nach dem Prüfen und Einstellen der Bilder des MFP prüfen. Weitere Einzelheiten siehe Wartungsanleitung.**

#### [Verifica del funzionamento]

1. Per verificare il funzionamento della macchina, preparare l'originale (a) tirando 4 linee (b) a 20 mm dai bordi del foglio A3 e una linea (c) al centro.
2. Inserire la spina dell'alimentazione dell'MFP nella presa a muro, quindi posizionare l'interruttore principale su On.
3. Posizionare l'originale(a) sul DP ed eseguire una copia di prova per verificare il funzionamento e l'esempio di copia.
4. Confrontare l'originale (a) con l'esempio di copia. Se lo scostamento supera il valore di riferimento, eseguire le seguenti regolazioni in funzione del tipo di scostamento.

**Controllare le immagini del DP dopo avere effettuato i controlli e le regolazioni delle immagini sull'MFP. Per ulteriori dettagli leggere il manuale d'istruzioni.**

#### [操作確認]

1. 若要检查机器操作，准备一张 A3 原稿 (a)，距纸张边缘 20mm 画出 4 条线 (b) 并且在原稿中心画出 1 条线 (c)。
2. 将 MFP 的电源插头插入墙壁插座并打开主电源。
3. 在 DP 上设定原稿 (a) 并进行测试复印，检查操作和复印样本。
4. 用复印样本对比原稿 (a)。如果间隙超过标准值，根据间隙类型进行下列调整。

**检查和调整 MFP 图像后检查 DP 的图像。有关详细信息，请参见维修手册。**

#### [動作確認]

1. A3 サイズ用紙の端から 20mm の位置に線 (b) 4 本と、用紙の中心に線 (c) 1 本を引いた、動作確認用の原稿 (a) を用意する。
2. MFP 本体の電源プラグをコンセントに差し込み、メインスイッチを ON にする。
3. 原稿 (a) を DP 本体にセットし、テストコピーを行い、動作およびコピーサンプルを確認する。
4. 原稿 (a) とコピーサンプルを比較し、基準値以上のずれがある場合、ずれ方に応じて調整を行う。

**MFP 本体の画像確認及び調整を行ってから DP 本体の画像確認を行うこと。詳細はサービスマニュアルを参照のこと。**

Be sure to adjust in the following order. If not, the adjustment cannot be performed correctly.

- For the adjustment of DP oblique position, see page 10. <Reference value> Single copying: within  $\pm 3$  mm; Duplex copying: within  $\pm 4$  mm
  - For the adjustment of DP original size, see page 13. <Reference value> within  $\pm 1.5\%$
  - For the adjustment of DP leading edge timing, see page 15. <Reference value> within  $\pm 2.5$  mm
  - For the adjustment of DP original center line, see page 17. <Reference value> Single copying:  $\pm 2$  mm; Duplex copying: within  $\pm 3$  mm
- When using the DP auto adjusting original, automatic adjustments excluding the DP oblique position adjustment can be performed.**
- For the adjustments using DP auto adjusting original, see page 20.

Veiller à effectuer les réglages dans l'ordre suivant. Si ce n'est pas le cas, ils ne seront pas effectués correctement.

- Pour le réglage de la position oblique du DP, voir la page 10. <Valeur de référence> Copie recto :  $\pm 3$  mm ; Copie recto-verso :  $\pm 4$  mm
  - Pour le réglage du format d'original du DP, voir la page 13. <Valeur de référence>  $\pm 1,5\%$
  - Pour le réglage de la synchronisation du bord avant du DP, voir la page 15. <Valeur de référence>  $\pm 2,5$  mm
  - Pour le réglage de l'axe de l'original du DP, voir la page 17. <Valeur de référence> Copie recto :  $\pm 2$  mm ; Copie recto-verso :  $\pm 3$  mm
- En cas d'utilisation de la fonction de réglage automatique d'original du DP, les réglages automatiques, sauf le réglage de la position oblique du DP, peuvent être effectués.**
- Pour les réglages effectués à l'aide de la fonction de réglage automatique d'original du DP, voir la page 20.

Haga el ajuste en el orden siguiente. De lo contrario, el ajuste no será correcto.

- Para el ajuste de la posición oblicua del DP, consulte la página 10. <Valor de referencia> Copiado por una cara: dentro de  $\pm 3$  mm; Copiado dúplex: dentro de  $\pm 4$  mm
  - Para el ajuste del tamaño de original del DP, consulte la página 13. <Valor de referencia> dentro de  $\pm 1,5\%$
  - Para el ajuste de la sincronización de extremo guía del DP, consulte la página 15. <Valor de referencia> dentro de  $\pm 2,5$  mm
  - Para el ajuste de la línea de centro del original del DP, consulte la página 17. <Valor de referencia> Copiado por una cara:  $\pm 2$  mm; Copiado dúplex: dentro de  $\pm 3$  mm
- Cuando se usa el original de ajuste automático del DP, se pueden realizar los ajustes automáticos, a excepción del ajuste de la posición oblicua del DP.**
- Para los ajustes que usan el original de ajuste automático del DP, consulte la página 20.

Die Einstellungen müssen in der folgenden Reihenfolge vorgenommen werden. Sonst kann die Einstellung nicht richtig ausgeführt werden.

- Einzelheiten zur Einstellung der Schräglage des DP siehe Seite 10. <Bezugswert> Einzelkopie: Innerhalb  $\pm 3$  mm; Duplexkopie: Innerhalb  $\pm 4$  mm
  - Einzelheiten zur Einstellung der Originalgröße des DP siehe Seite 13. <Bezugswert> Innerhalb  $\pm 1,5\%$
  - Einzelheiten zur Einstellung des Vorderkantentaktes des DP siehe Seite 15. <Bezugswert> Innerhalb  $\pm 2,5$  mm
  - Einzelheiten zur Einstellung der Originalmittellinie des DP siehe Seite 17. <Bezugswert> Einzelkopie:  $\pm 2$  mm; Duplexkopie: innerhalb  $\pm 3$  mm
- Bei der Verwendung der automatischen Einstellung des Originals des DP können automatische Einstellungen, außer der Einstellung der Schräglage des DP, ausgeführt werden.**
- Einzelheiten zu den Einstellungen mit der automatischen Einstellung des Originals des DP siehe Seite 20.

Accertarsi di eseguire le regolazioni in questa sequenza: in caso contrario, la regolazione non può essere effettuata correttamente.

- Per la regolazione della posizione obliqua del DP, vedere pagina 10. <Valore di riferimento> Copia singola: tolleranza  $\pm 3$  mm; Copia duplex: tolleranza  $\pm 4$  mm
  - Per la regolazione delle dimensioni dell'originale DP, vedere pagina 13. <Valore di riferimento> tolleranza  $\pm 1,5\%$
  - Per la regolazione della fasatura del bordo di entrata del DP, vedere pagina 15. <Valore di riferimento> tolleranza  $\pm 2,5$  mm
  - Per la regolazione della linea centrale del DP, vedere pagina 17. <Valore di riferimento> Copia singola:  $\pm 2$  mm; Copia duplex: tolleranza  $\pm 3$  mm
- Se si utilizza l'autoregolazione originale DP, è possibile eseguire regolazioni automatiche, eccetto la regolazione della posizione obliqua del DP.**
- Per le regolazioni con l'autoregolazione originale DP, vedere pagina 20.

请务必按下列顺序调整。如果未按照下列顺序,则无法正确进行调整。

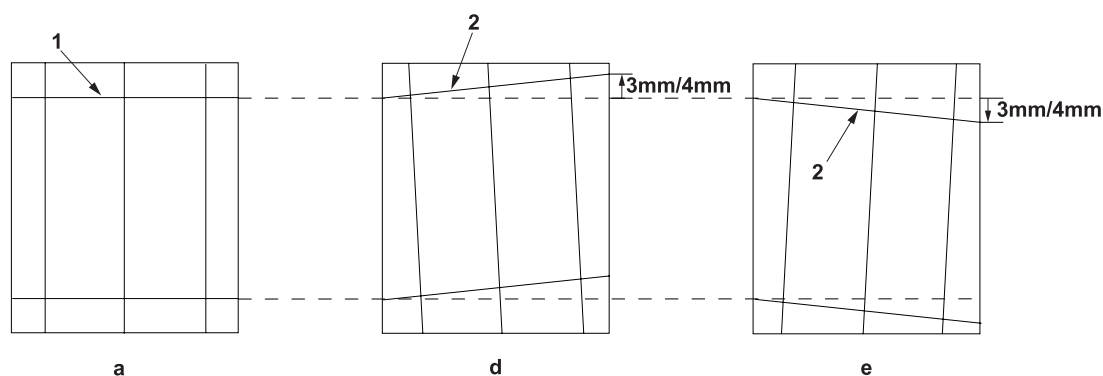
- 有关 DP 倾斜位置的调整,请参见第 10 页。 <标准值> 单面复印:  $\pm 3$ mm 内, 双面复印:  $\pm 4$ mm 内
- 有关 DP 原稿尺寸的调整,请参见第 13 页。 <标准值>  $\pm 1.5\%$  内
- 有关 DP 前边定时的调整,请参见第 15 页。 <标准值>  $\pm 2.5$ mm 内
- 有关 DP 原稿中心线的调整,请参见第 17 页。 <标准值> 单面复印:  $\pm 2$ mm, 双面复印:  $\pm 3$ mm 内

使用 DP 自动调整原稿时,可进行不包括 DP 倾斜位置调整的自动调整。

- 有关使用 DP 自动调整原稿的调整,请参见第 20 页。

必ず下記の順序で調整を行うこと。順序通りに調整を行わない場合、正しい調整ができない。

- DP 斜め確認 10 ページ <基準値> 片面:  $\pm 3$ mm 以内 両面:  $\pm 4$ mm 以内
  - DP 等倍度確認 13 ページ <基準値>  $\pm 1.5\%$
  - DP 先端タイミング確認 15 ページ <基準値>  $\pm 2.5$ mm 以内
  - DP 原稿センター位置確認 17 ページ <基準値> 片面:  $\pm 2$ mm 以内 両面:  $\pm 3$ mm 以内
- DP 自動調整原稿を使用すると、DP 斜め調整以外の自動調整が行える。
- DP 自動調整原稿による調整 20 ページ



### [Checking DP oblique position]

1. Check the horizontal gap between line (1) of original (a) and line (2) of copy example positions. If the gap exceeds the reference value, adjust the gap according to the following procedure.

<Reference value> For single copying: The horizontal gap of line (2) should be within  $\pm 3$  mm.  
For duplex copying: The horizontal gap of line (2) should be within  $\pm 4$  mm.

### [Vérification de la position oblique du DP]

1. Vérifier l'écart horizontal entre la position de la ligne (1) de l'original (a) et celle de la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.

<Valeur de référence> Pour la copie recto : l'écart horizontal de la ligne (2) doit être de  $\pm 3$  mm.  
Pour la copie recto-verso : l'écart horizontal de la ligne (2) doit être de  $\pm 4$  mm.

### [Verificación de la posición oblicua del DP]

1. Compruebe la separación horizontal entre la línea (1) del original (a) y la línea (2) de las posiciones del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.

<Valor de referencia> Para el copiado por una cara: la separación horizontal de la línea (2) debe estar dentro de  $\pm 3$  mm.  
Para el copiado dúplex: la separación horizontal de la línea (2) debe estar dentro de  $\pm 4$  mm.

### [Prüfen der Schräglage des DP]

1. Den horizontalen Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) der Kopierbeispielspositionen prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.

<Bezugswert> Einzelkopie: Der horizontale Abstand der Linie (2) sollte innerhalb von  $\pm 3$  mm liegen.  
Duplexkopie: Der horizontale Abstand der Linie (2) sollte innerhalb von  $\pm 4$  mm liegen.

### [Verifica della posizione obliqua del DP]

1. Verificare lo scostamento orizzontale fra la linea (1) dell'originale (a) e la linea (2) delle posizioni dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.

<Valore di riferimento> Per la copia singola: lo scostamento orizzontale della linea (2) deve limitarsi a  $\pm 3$  mm.  
Per la copia duplex: lo scostamento orizzontale della linea (2) deve limitarsi a  $\pm 4$  mm.

### [检查 DP 倾斜位置]

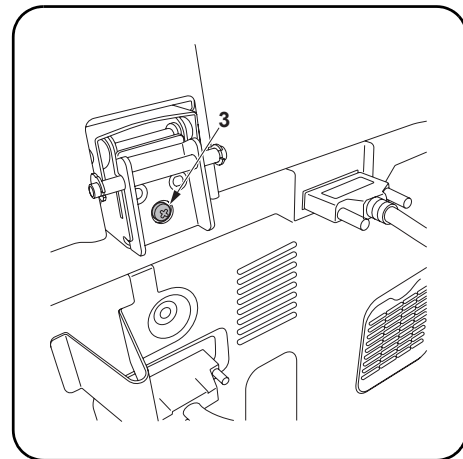
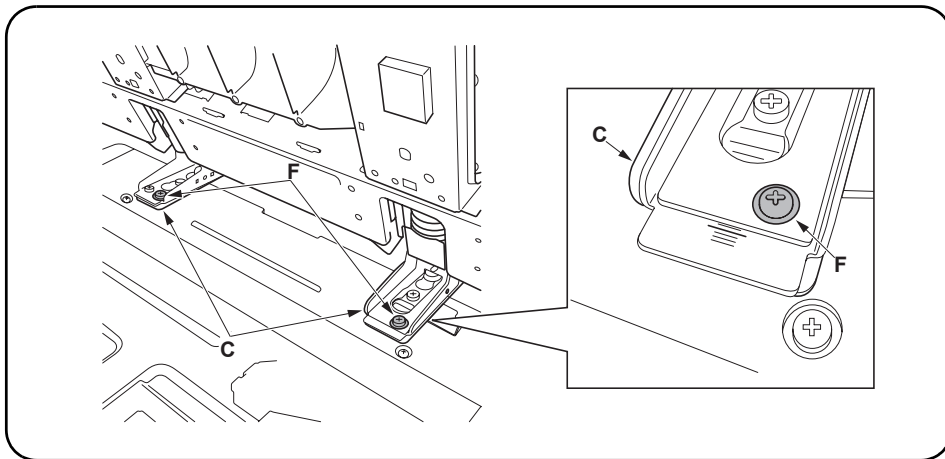
1. 检查原稿 (a) 上的线 (1) 和复印样本位置上的线 (2) 之间的水平间隙。如果间隙超过标准值，按照下列步骤调整间隙。

<标准值> 对于单面复印：线 (2) 的水平间隙在  $\pm 3$ mm 内。  
对于双面复印：线 (2) 的水平间隙在  $\pm 4$ mm 内。

### [DP 斜め確認]

1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) の左右のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。

<基準値> 片面の場合、線 (2) の左右ずれ： $\pm 3$ mm 以内  
両面の場合、線 (2) の左右ずれ： $\pm 4$ mm 以内



### Adjusting the DP oblique position.

1. Loosen two M4 × 14TP screws (F) of right and left fixing fittings (C).
2. Turn adjusting screw (3) at the rear side of the right hinge to adjust the DP position.  
For copy example (d): Turn the adjusting screw counterclockwise and move the DP to the inner side.  
For copy example (e): Turn the adjusting screw clockwise and move the DP to the front side.  
Amount of change per scale: Approx. 1 mm
3. Perform a test copy.

### Réglage de la position oblique du DP.

1. Desserrer les deux vis TP M4 × 14 (F) des fixations (C) droite et gauche.
2. Tourner la vis de réglage (3) à l'arrière de la charnière droite pour régler la position du DP.  
Pour l'exemple de copie (d) : tourner la vis de réglage dans le sens inverse des aiguilles d'une montre et déplacer le DP vers l'intérieur.  
Pour l'exemple de copie (e) : tourner la vis de réglage dans le sens des aiguilles d'une montre et déplacer le DP vers l'avant.  
Changement par graduation d'échelle : environ 1 mm
3. Effectuer une copie de test.

### Ajuste de la posición oblicua del DP.

1. Afloje dos tornillos TP M4 × 14 (F) de los herrajes de fijación (C) derecho e izquierdo.
2. Gire el tornillo de ajuste (3) en el lado trasero de la bisagra derecha para ajustar la posición del DP.  
Para el ejemplo de copia (d): gire el tornillo de ajuste en sentido antihorario y mueva el DP al lado interno.  
Para el ejemplo de copia (e): gire el tornillo de ajuste en sentido horario y mueva el DP al lado frontal.  
Magnitud del cambio por escala: aprox. 1 mm
3. Haga una copia de prueba.

### Einstellen der Schräglage des DP.

1. Die zwei M4 × 14TP Schrauben (F) an der rechten und linken Befestigungshalterung (C) lösen.
2. Die Einstellschraube (3) an der Rückseite des rechten Scharniers einstellen, um die DP-Position einzustellen.  
Kopierbeispiel (d): Die Einstellschraube nach links drehen und den DP nach innen schieben.  
Kopierbeispiel (e): Die Einstellschraube nach rechts drehen und den DP nach vorne schieben.  
Änderung pro Maßstab: Ungefähr 1 mm
3. Eine Testkopie erstellen.

### Regolazione della posizione obliqua del DP.

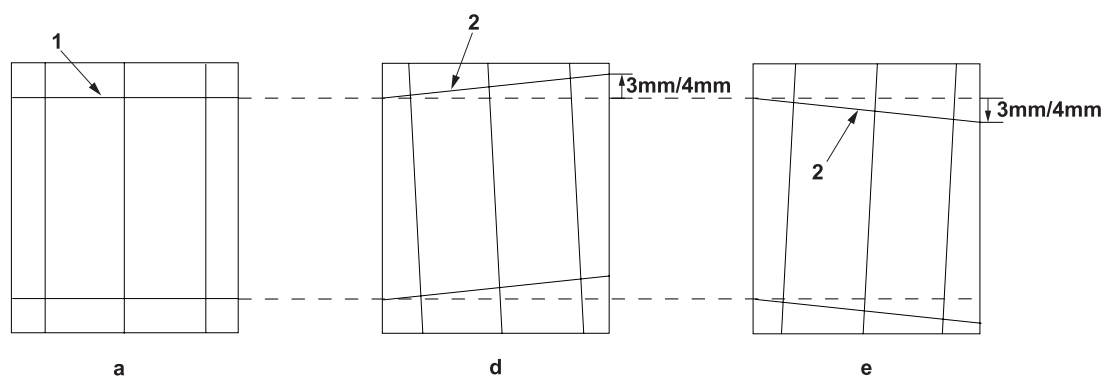
1. Allentare le due viti M4 × 14TP (F) degli accessori di fissaggio (C) destro e sinistro.
2. Ruotare la vite di regolazione (3) sul lato posteriore della cerniera destra per regolare la posizione del DP.  
Per l'esempio di copia (d): ruotare la vite di regolazione in senso antiorario e spostare il DP verso l'interno.  
Per l'esempio di copia (e): ruotare la vite di regolazione in senso orario e spostare il DP in avanti.  
Entità modifica per scala: circa 1 mm
3. Eseguire una copia di prova.

### 調整 DP 傾斜位置。

1. 松开右侧和左侧的固定附件 (C) 的两颗 M4 × 14TP 螺钉 (F)。
2. 旋转右部铰链的后部的调整螺钉 (3) 以调整 DP 位置。  
对于复印样本 (d)：逆时针旋转调整螺钉并将 DP 移动到内侧。  
对于复印样本 (e)：顺时针旋转调整螺钉并将 DP 移动到正面。  
按比例尺的更改量：约 1mm
3. 进行测试复印。

### DP 斜め調整

1. 左右の固定金具 (C) のビス M4 × 14TP (F) 2本を緩める。
2. 右ヒンジ後側の調整ビス (3) を回し、DP 本体の位置を調整する。  
コピーサンプル (d) の場合：調整ビスを左に回し、DP 本体を奥へ動かす  
コピーサンプル (e) の場合：調整ビスを右に回し、DP 本体を手前へ動かす  
1目盛り当たりの変化量：約 1mm
3. テストコピーを行う。



4. Repeat the steps above until the gap of line (2) of copy example shows the following reference values.  
 <Reference value> For single copying: The horizontal gap of line (2) should be within  $\pm 3$  mm.  
 For duplex copying: The horizontal gap of line (2) should be within  $\pm 4$  mm.
5. After adjustment is completed, retighten two M4  $\times$  14TP screws (F) that have been loosened in step 1.

4. Répéter les étapes ci-dessus jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique les valeurs de référence suivantes.  
 <Valeur de référence> Pour la copie recto : l'écart horizontal de la ligne (2) doit être de  $\pm 3$  mm.  
 Pour la copie recto-verso : l'écart horizontal de la ligne (2) doit être de  $\pm 4$  mm.
5. Une fois le réglage effectué, resserrer les deux vis TP M4  $\times$  14 (F) desserrées à l'étape 1.

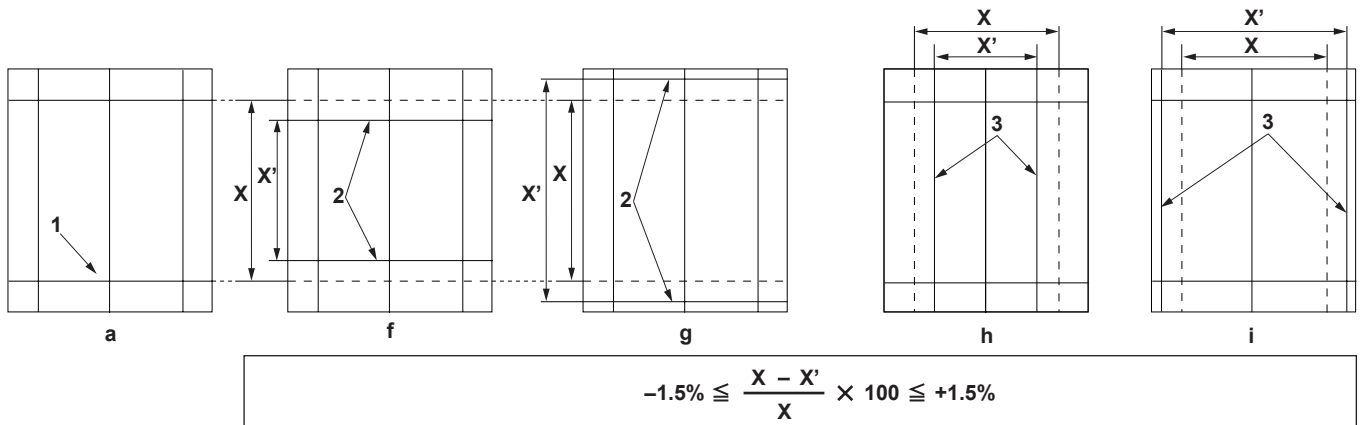
4. Repita los pasos anteriores hasta que la separación de la línea (2) del ejemplo de copia presente los siguientes valores de referencia.  
 <Valor de referencia> Para el copiado por una cara: la separación horizontal de la línea (2) debe estar dentro de  $\pm 3$  mm.  
 Para el copiado dúplex: la separación horizontal de la línea (2) debe estar dentro de  $\pm 4$  mm.
5. Una vez hecho el ajuste, vuelva a apretar los dos tornillos TP M4  $\times$  14 (F) que ha aflojado en el paso 1.

4. Die obigen Schritte wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels die folgenden Bezugswerte aufweist.  
 <Bezugswert> Einzelkopie: Der horizontale Abstand der Linie (2) sollte innerhalb von  $\pm 3$  mm liegen.  
 Duplexkopie: Der horizontale Abstand der Linie (2) sollte innerhalb von  $\pm 4$  mm liegen.
5. Nach der Einstellung die zwei M4  $\times$  14TP Schrauben (F), die in Schritt 1 gelöst wurden, wieder festziehen.

4. Ripetere le operazioni sopra descritte fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento seguenti.  
 <Valore di riferimento> Per la copia singola: lo scostamento orizzontale della linea (2) deve limitarsi a  $\pm 3$  mm.  
 Per la copia duplex: lo scostamento orizzontale della linea (2) deve limitarsi a  $\pm 4$  mm.
5. Una volta conclusa la regolazione, serrare nuovamente le viti M4  $\times$  14TP (F) che erano state allentate al Punto 1.

4. 重复上述步骤直到复印样本上的线(2)的间隙显示下列标准值。  
 <标准值> 对于单面复印: 线(2)的水平间隙在  $\pm 3$ mm 内。  
 对于双面复印: 线(2)的水平间隙在  $\pm 4$ mm 内。
5. 调整完成后, 重新拧紧在步骤 1 中松开的两颗 M4  $\times$  14TP 螺钉 (F)。

4. コピーサンプルの線(2)ずれが基準値内になるまで、調整を繰り返す。  
 <基準値> 片面の場合、線(2)の左右ずれ:  $\pm 3$ mm 以内  
 両面の場合、線(2)の左右ずれ:  $\pm 4$ mm 以内
5. 調整終了後、手順 1 で緩めたビス M4  $\times$  14TP (F) 2 本を締め付ける。



#### [Checking DP original size]

1. Check the gap between line (1) of original (a) and line (2) (3) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.  
<Reference value>  
For the sub-scan direction, vertical gap of line (2): within  $\pm 1.5\%$   
For the main-scan direction, horizontal gap of line (3): within  $\pm 1.5\%$

#### Adjusting DP original size.

1. Set the maintenance mode U070, and adjust the copy example for each of single and duplex copying respectively.  
For the single copying, adjusts the CONVEY SPEED (sub-scan direction).  
For the duplex copying, adjusts the CIS MAIN ADJ (rear side main-scan direction) and the CIS SUB ADJ (rear side sub-scan direction).

#### [Vérification du format d'original du DP]

1. Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) (3) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.  
<Valeur de référence>  
Pour la direction du balayage secondaire, l'écart vertical de la ligne (2) est de  $\pm 1,5\%$   
Pour la direction du balayage principal, l'écart horizontal de la ligne (3) est de  $\pm 1,5\%$

#### Réglage du format d'original du DP.

1. Exécuter le mode d'entretien U070 et régler l'exemple de copie pour la copie recto et la copie recto-verso respectivement.  
Pour la copie recto, régler CONVEY SPEED (vitesse d'acheminement) (direction du balayage secondaire).  
Pour la copie recto-verso, régler CIS MAIN ADJ (réglage principal du détecteur d'image à contact) (direction du balayage principal - arrière) et CIS SUB ADJ (réglage secondaire du détecteur d'image à contact) (direction du balayage secondaire - arrière).

#### [Verificación del tamaño de original del DP]

1. Compruebe la separación entre la línea (1) del original (a) y la línea (2) (3) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.  
<Valor de referencia>  
Para la dirección de exploración secundaria, separación vertical de la línea (2): dentro de  $\pm 1,5\%$   
Para la dirección de exploración principal, separación horizontal de la línea (3): dentro de  $\pm 1,5\%$

#### Ajuste del tamaño de original del DP.

1. Active el modo de mantenimiento U070 y ajuste el ejemplo de copia para el copiado por una cara y para el copiado dúplex, respectivamente.  
Para el copiado por una cara, ajuste CONVEY SPEED (velocidad de transporte) (dirección de exploración secundaria).  
Para el copiado dúplex, ajuste CIS MAIN ADJ (aj principal CIS) (dirección de exploración principal del reverso) y CIS SUB ADJ (aj secundario CIS) (dirección de exploración secundaria del reverso).

#### [Prüfen der Originalgröße des DP]

1. Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) (3) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.  
<Bezugswert>  
Subscanrichtung: Vertikaler Abstand der Linie (2): Innerhalb  $\pm 1,5\%$   
Hauptscanrichtung: Horizontaler Abstand der Linie (3): Innerhalb  $\pm 1,5\%$

#### Einstellen der Originalgröße des DP.

1. Den Wartungsmodus U070 einstellen und das Kopierbeispiel für jede Einzel- und Duplexkopie einstellen.  
Für die Einzelkopie die CONVEY SPEED (ZUFUHRGESCHWINDIGKEIT) (Subscanrichtung) einstellen.  
Für die Duplexkopie CIS MAIN ADJ (CIS-HAUPT-EINSTELLUNG) (Hauptscanrichtung hinten) und CIS SUB ADJ (CIS-UNTEREINSTELLUNG) (Subscanrichtung hinten) einstellen.

#### [Verifica delle dimensioni dell'originale DP]

1. Verificare lo scostamento fra la linea (1) dell'originale (a) e la linea (2) (3) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.  
<Valore di riferimento>  
Per l'orientamento della scansione ausiliare, lo scostamento verticale della linea (2) deve essere compreso fra  $\pm 1,5\%$   
Per l'orientamento della scansione principale, lo scostamento orizzontale della linea (3) deve essere compreso fra  $\pm 1,5\%$

#### Regolazione delle dimensioni dell'originale DP.

1. Impostare la modalità di manutenzione U070 e regolare l'esempio di copia rispettivamente per ogni esecuzione di copia singola e duplex.  
Per la copia singola, regolare CONVEY SPEED (VELOCITÀ TRASFERIMENTO) (orientamento della scansione ausiliare).  
Per la copia duplex, regola CIS MAIN ADJ (REGOLAZIONE SCANSIONE PRINCIPALE CIS) (orientamento scansione principale lato posteriore) e CIS SUB ADJ (REGOLAZIONE SCANSIONE AUSILIARE CIS) (orientamento scansione ausiliare lato posteriore).

#### [检查 DP 原稿尺寸]

1. 检查原稿 (a) 上的线 (1) 和复印样本上的线 (2) (3) 之间的间隙。如果间隙超过标准值, 按照下列步骤调整间隙。  
<标准值>  
对于副扫描方向, 线 (2) 的垂直间隙:  $\pm 1.5\%$  内  
对于主扫描方向, 线 (3) 的水平间隙:  $\pm 1.5\%$  内

#### 调整 DP 原稿尺寸。

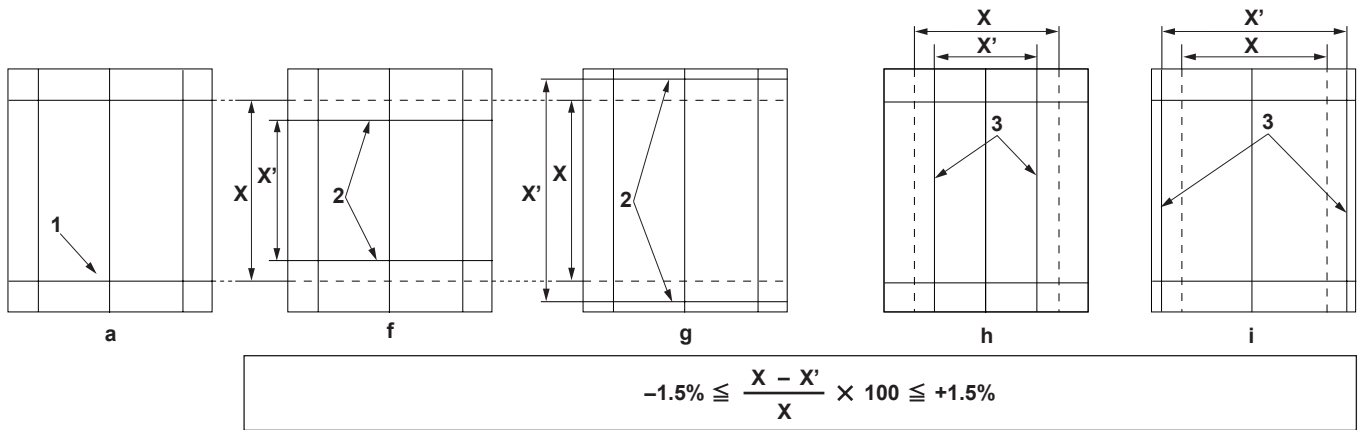
1. 设定维修模式 U070, 并分别调整每次单面和双面复印的复印样本。  
对于单面复印, 调整 CONVEY SPEED (传送速度) (副扫描方向)。  
对于双面复印, 调整 CIS MAIN ADJ (后部主扫描调整) (后部主扫描方向) 和 CIS SUB ADJ (后部副扫描调整) (后部副扫描方向)。

#### [DP 等倍度確認]

1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) (3) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。  
<基準値>  
副走査方向の場合、線 (2) の上下ずれ:  $\pm 1.5\%$  以内  
主走査方向の場合、線 (3) の左右ずれ:  $\pm 1.5\%$  以内

#### DP 等倍度調整

1. メンテナンスモード U070 をセットし、コピーサンプルの片面、両面別に調整する。  
片面の場合、CONVEY SPEED (副走査方向) の調整を行う。  
両面の場合、CIS MAIN ADJ (裏面の主走査方向) と CIS SUB ADJ (裏面の副走査方向) の調整を行う。



2. Adjust the values.  
For the shorter length copy example (f)(h): Increases the value.  
For the longer length copy example (g)(i): Decreases the value.  
Amount of change per step: 0.42 mm
3. Perform a test copy.
4. Repeat the steps 1 to 3 above until the gap of line (2) (3) of copy example shows the reference value.  
<Reference value>  
For the sub-scan direction, vertical gap of line (2): within  $\pm 1.5\%$   
For the main-scan direction, horizontal gap of line (3): within  $\pm 1.5\%$

2. Régler les valeurs.  
Pour l'exemple de copie dont la longueur est plus courte (f)(h) : augmenter la valeur.  
Pour l'exemple de copie dont la longueur est plus longue (g)(i) : diminuer la valeur.  
Changement par graduation d'échelle : 0,42 mm
3. Effectuer une copie de test.
4. Répéter les étapes 1 à 3 jusqu'à ce que l'écart de la ligne (2) (3) de l'exemple de copie indique la valeur de référence.  
<Valeur de référence>  
Pour la direction du balayage secondaire, l'écart vertical de la ligne (2) est de  $\pm 1,5\%$   
Pour la direction du balayage principal, l'écart horizontal de la ligne (3) est de  $\pm 1,5\%$

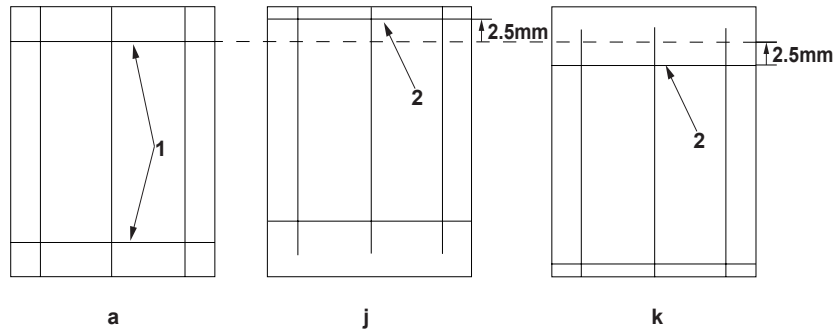
2. Ajuste los valores.  
Para el ejemplo de copia más corto (f)(h): aumenta el valor.  
Para el ejemplo de copia más largo (g)(i): disminuye el valor.  
Magnitud del cambio por incremento: 0,42 mm
3. Haga una copia de prueba.
4. Repita los pasos 1 a 3 anteriores hasta que la separación de la línea (2) (3) del ejemplo de copia presente el valor de referencia.  
<Valor de referencia>  
Para la dirección de exploración secundaria, separación vertical de la línea (2): dentro de  $\pm 1,5\%$   
Para la dirección de exploración principal, separación horizontal de la línea (3): dentro de  $\pm 1,5\%$

2. Die Werte einstellen.  
Für die kürzere Länge des Kopierbeispiels (f)(h): Den Wert erhöhen.  
Für die längere Länge des Kopierbeispiels (g)(i): Den Wert verringern.  
Änderung pro Schritt: 0,42 mm
3. Eine Testkopie erstellen.
4. Die Schritte 1 bis 3 wiederholen, bis der Abstand der Linie (2) (3) des Kopierbeispiels den Bezugswert aufweist.  
<Bezugswert>  
Subscanrichtung: Vertikaler Abstand der Linie (2): Innerhalb  $\pm 1,5\%$   
Hauptscanrichtung: Horizontaler Abstand der Linie (3): Innerhalb  $\pm 1,5\%$

2. Regolare i valori.  
Per l'esempio di copia di lunghezza inferiore (f)(h): aumenta il valore.  
Per l'esempio di copia di lunghezza superiore (g)(i): riduce il valore.  
Entità modifica per passo: 0,42 mm
3. Eseguire una copia di prova
4. Ripetere le operazioni sopra descritte da 1 a 3 fino a quando lo scostamento della linea (2) (3) dell'esempio di copia riporterà i valori di riferimento.  
<Valore di riferimento>  
Per l'orientamento della scansione ausiliare, lo scostamento verticale della linea (2) deve essere compreso fra  $\pm 1,5\%$   
Per l'orientamento della scansione principale, lo scostamento orizzontale della linea (3) deve essere compreso fra  $\pm 1,5\%$

2. 調整数値。  
对于更短长度的复印样本 (f) (h): 增大数值。  
对于更长长度的复印样本 (g) (i): 减小数值。  
按步骤的更改量: 0.42mm
3. 进行测试复印。
4. 重复上述步骤 1 至 3 直到复印样本上的线 (2) (3) 的间隙显示标准值。  
<标准值>  
对于副扫描方向, 线 (2) 的垂直间隙:  $\pm 1.5\%$  内  
对于主扫描方向, 线 (3) 的水平间隙:  $\pm 1.5\%$  内

2. 設定値を調整する。  
長さが短い場合 コピーサンプル (f) (h): 設定値を上げる  
長さが長い場合 コピーサンプル (g) (i): 設定値を下げる  
1 ステップ当たりの変化量: 0.42mm
3. テストコピーを行う。
4. コピーサンプルの線 (2) (3) のずれが基準値内になるまで手順 1 ～ 3 を繰り返す。  
<基準値>  
副走査方向の場合、線 (2) の上下ずれ:  $\pm 1.5\%$  以内  
主走査方向の場合、線 (3) の左右ずれ:  $\pm 1.5\%$  以内



#### [Checking the DP leading edge timing]

1. Check the gap between line (1) on original (a) and line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.  
<Reference value> Vertical gap of line (2): within  $\pm 2.5$  mm

#### Adjusting the DP leading edge timing.

1. Set the maintenance mode U071, and adjust the copy example for each of single, duplex and 180-degree rotation copying respectively.  
For the single copying, adjusts the ADJUST DATA1 (leading edge).  
For the duplex copying, adjusts the ADJUST DATA3 (rear side main-scan direction).  
For the 180-degree rotation copying, adjusts the ADJUST DATA5 (180-degree rotation).

#### [Vérification de la synchronisation du bord avant du DP]

1. Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.  
<Valeur de référence> Écart vertical de la ligne (2) :  $\pm 2.5$  mm

#### Réglage de la synchronisation du bord avant du DP.

1. Exécuter le mode d'entretien U071 et régler l'exemple de copie pour la copie recto, la copie recto-verso et la copie avec rotation de 180 degrés respectivement.  
Pour la copie recto, régler ADJUST DATA1 (régler données1) (bord avant).  
Pour la copie recto-verso, régler ADJUST DATA3 (régler données3) (direction du balayage principal - arrière).  
Pour la copie avec rotation de 180 degrés, régler ADJUST DATA5 (régler données5) (rotation de 180 degrés).

#### [Verificación de la sincronización de extremo guía del DP]

1. Compruebe la separación entre la línea (1) del original (a) y la línea (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.  
<Valor de referencia> Separación vertical de la línea (2): dentro de  $\pm 2,5$  mm

#### Ajuste de la sincronización de extremo guía del DP.

1. Active el modo de mantenimiento U071 y ajuste el ejemplo de copia para el copiado por una cara, para el copiado dúplex y para el copiado con giro de 180 grados, respectivamente.  
Para el copiado por una cara, ajuste ADJUST DATA1 (ajustar datos 1) (extremo guía).  
Para el copiado dúplex, ajuste ADJUST DATA3 (ajustar datos 3) (dirección de exploración principal del reverso).  
Para el copiado con giro de 180 grados, ajuste ADJUST DATA5 (ajustar datos 5) (giro de 180 grados).

#### [Prüfen des Vorderkantentaktes des DP]

1. Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.  
<Bezugswert> Vertikaler Abstand der Linie (2): Innerhalb  $\pm 2,5$  mm

#### Einstellen des Vorderkantentaktes des DP.

1. Den Wartungsmodus U071 einstellen und das Kopierbeispiel für jede Einzelkopie, Duplexkopie und um 180 Grad gedrehte Kopie einstellen.  
Für die Einzelkopie ADJUST DATA1 (EINSTELLDATEN1) (Vorderkante).  
Für die Duplexkopie ADJUST DATA3 (EINSTELLDATEN3) (Hauptscanrichtung hinten).  
Für die um 180 Grad gedrehte Kopie ADJUST DATA5 (EINSTELLDATEN5) (Drehung um 180 Grad) einstellen.

#### [Verifica della fasatura del bordo di entrata]

1. Verificare lo scostamento fra la linea (1) sull'originale (a) e la linea (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.  
<Valore di riferimento> Scostamento verticale della linea (2) compreso fra  $\pm 2,5$  mm

#### Regolazione della fasatura del bordo di entrata.

1. Impostare la modalità di manutenzione U071 e regolare l'esempio di copia rispettivamente per ogni esecuzione di copia singola, duplex e in rotazione di 180 gradi.  
Per la copia singola, regola ADJUST DATA1 (REGOLAZIONE DATI1) (bordo di entrata).  
Per la copia duplex, regola ADJUST DATA3 (REGOLAZIONE DATI3) (orientamento scansione principale lato posteriore).  
Per la copia in rotazione di 180 gradi, regola ADJUST DATA5 (REGOLAZIONE DATI5) (rotazione 180 gradi).

#### [检查 DP 前边定时]

1. 检查原稿 (a) 上的线 (1) 和复印样本上的线 (2) 之间的间隙。如果间隙超过标准值, 按照下列步骤调整间隙。  
<标准值> 线 (2) 的垂直间隙:  $\pm 2.5$ mm 内

#### 调整 DP 前边定时。

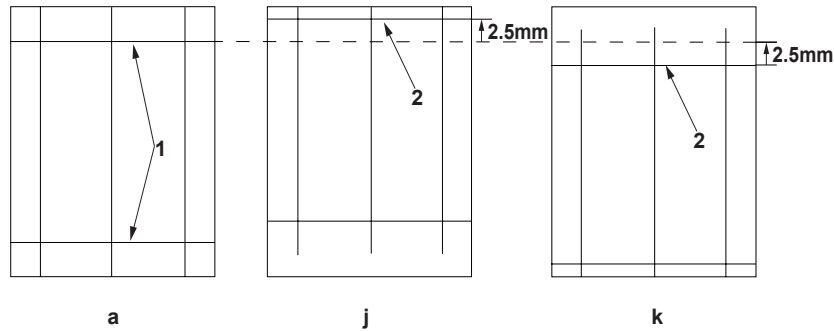
1. 设定维修模式 U071, 并分别调整每次单面、双面和 180 度旋转复印的复印样本。  
对于单面复印, 调整 ADJUST DATA1 (调整数据 1) (前边)。  
对于双面复印, 调整 ADJUST DATA3 (调整数据 3) (后部主扫描方向)。  
对于 180 度旋转复印, 调整 ADJUST DATA5 (调整数据 5) (180 度旋转)。

#### [DP 先端タイミング確認]

1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。  
<基準値> 線 (2) の上下ずれ:  $\pm 2.5$ mm 以内

#### DP 先端タイミング調整

1. メンテナンスモード U071 をセットし、コピーサンプルの片面、両面、180 度回転別に調整する。  
片面と両面の表の場合、ADJUST DATA1 (先端) の調整を行う。  
両面の裏面の場合、ADJUST DATA3 (裏先端) の調整を行う。  
180 度回転の場合、ADJUST DATA5 (180 度回転) の調整を行う。



2. Adjust the values.

For the faster leading edge timing, copy examples (j): Decreases the value.

For the slower leading edge timing, copy examples (k): Increases the value.

Amount of change per step: 0.17 mm

3. Perform a test copy.

4. Repeat the steps 1 to 3 above until the gap of line (2) of copy example shows the reference value.

<Reference value> Vertical gap of line (2): within  $\pm 2.5$  mm

2. Régler les valeurs.

Pour les exemples de copie dont la synchronisation du bord avant est plus rapide (j) : diminuer la valeur.

Pour les exemples de copie dont la synchronisation du bord avant est plus lente (k) : augmenter la valeur.

Changement par graduation d'échelle : 0,17 mm

3. Effectuer une copie de test.

4. Répéter les étapes 1 à 3 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.

<Valeur de référence> Écart vertical de la ligne (2) :  $\pm 2.5$  mm

2. Ajuste los valores.

Para una sincronización más rápida de extremo guía, ejemplos de copia (j): disminuye el valor.

Para una sincronización más lenta de extremo guía, ejemplos de copia (k): aumenta el valor.

Magnitud del cambio por incremento: 0,17 mm

3. Haga una copia de prueba.

4. Repita los pasos 1 a 3 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.

<Valor de referencia> Separación vertical de la línea (2): dentro de  $\pm 2,5$  mm

2. Die Werte einstellen.

Für den schnelleren Vorderkantentakt, Kopierbeispiel (j): Den Wert verringern.

Für den langsameren Vorderkantentakt, Kopierbeispiel (k): Den Wert erhöhen.

Änderung pro Schritt: 0,17 mm

3. Eine Testkopie erstellen.

4. Die Schritte 1 bis 3 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.

<Bezugswert> Vertikaler Abstand der Linie (2): Innerhalb  $\pm 2,5$  mm

2. Regolare i valori.

Per accelerare la fasatura del bordo di entrata, esempi di copia (j): riduce il valore.

Per rallentare la fasatura del bordo di entrata, esempi di copia (k): aumenta il valore.

Entità modifica per passo: 0,17 mm

3. Eseguire una copia di prova

4. Ripetere le operazioni sopra descritte da 1 a 3 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.

<Valore di riferimento> Scostamento verticale della linea (2) compreso fra  $\pm 2,5$  mm

2. 調整数值。

对于更快的前边定时, 复印样本 (j): 减小数值。

对于更慢的前边定时, 复印样本 (k): 增大数值。

按步骤的更改量: 0.17mm

3. 进行测试复印。

4. 重复上述步骤 1 至 3 直到复印样本上的线 (2) 的间隙显示标准值。

<标准值> 线 (2) 的垂直间隙:  $\pm 2.5$ mm 内

2. 設定値を調整する。

先端タイミングが早い場合 コピーサンプル (j): 設定値を下げる

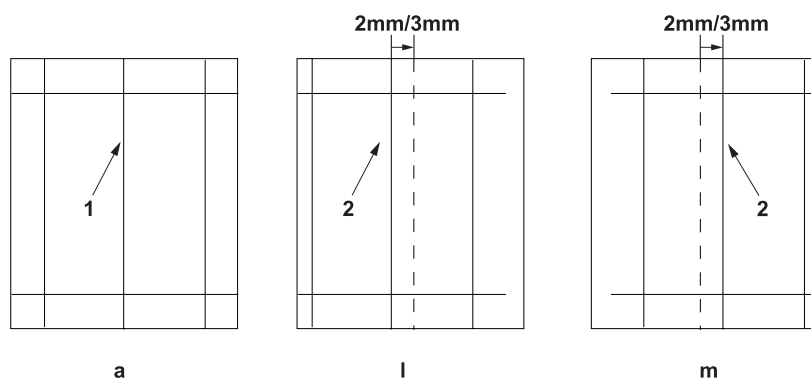
先端タイミングが遅い場合 コピーサンプル (k): 設定値を上げる

1 ステップ当たりの変化量: 0.17mm

3. テストコピーを行う。

4. コピーサンプルの線 (2) のずれが基準値内になるまで手順 1 ~ 3 を繰り返す。

<基準値> 線 (2) の上下ずれ:  $\pm 2.5$ mm 以内



#### [Checking the DP original center line]

1. Check the gap between center line (1) on original (a) and center line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.

<Reference value> Horizontal difference of center line (2) for the single copying:  $\pm 2$  mm  
Horizontal difference of center line (2) for the duplex copying:  $\pm 3$  mm

#### [Vérification de l'axe de l'original du DP]

1. Vérifier l'écart entre l'axe (1) de l'original (a) et l'axe (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.

<Valeur de référence> Différence horizontale de l'axe (2) pour la copie recto :  $\pm 2$  mm  
Différence horizontale de l'axe (2) pour la copie recto-verso :  $\pm 3$  mm

#### [Verificación de la línea de centro del original del DP]

1. Compruebe la separación entre la línea de centro (1) del original (a) y la línea de centro (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.

<Valor de referencia> Diferencia horizontal de la línea de centro (2) para el copiado por una cara:  $\pm 2$  mm  
Diferencia horizontal de la línea de centro (2) para el copiado dúplex:  $\pm 3$  mm

#### [Prüfen der Originalmittellinie des DP]

1. Den Abstand zwischen der Mittellinie (1) des Originals (a) und der Mittellinie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.

<Bezugswert> Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie:  $\pm 2$  mm  
Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie:  $\pm 3$  mm

#### [Verifica della linea centrale del DP]

1. Verificare lo scostamento fra la linea centrale (1) sull'originale (a) e la linea centrale (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.

<Valore di riferimento> Differenza orizzontale della linea centrale (2) per la copia singola:  $\pm 2$  mm  
Differenza orizzontale della linea centrale (2) per la copia duplex:  $\pm 3$  mm

#### [检查 DP 原稿中心线]

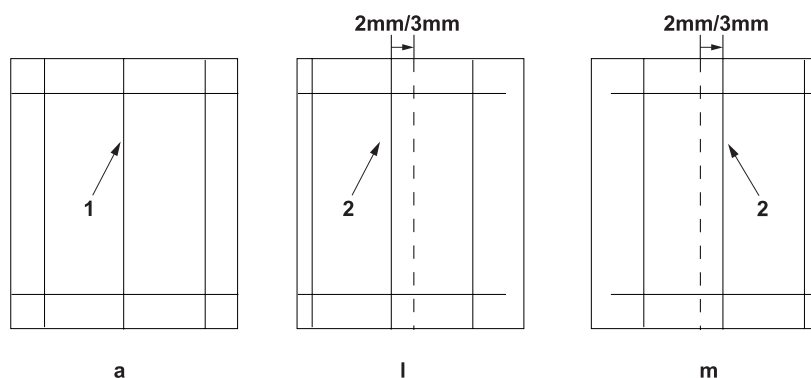
1. 检查原稿 (a) 中心线 (1) 和复印样本中心线 (2) 之间的间隙。如果间隙超过标准值，按照下列步骤调整间隙。

<标准值> 单面复印时中心线 (2) 的水平差距:  $\pm 2$ mm  
双面复印时中心线 (2) 的水平差距:  $\pm 3$ mm

#### [DP 原稿センター位置確認]

1. 原稿 (a) の中心線 (1) とコピーサンプルの中心線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。

<基準値> 片面の場合、中心線 (2) の左右ずれ:  $\pm 2$ mm 以内  
両面の場合、中心線 (2) の左右ずれ:  $\pm 3$ mm 以内



### Adjusting the DP original center line.

1. Set the maintenance mode U072, and adjust the copy example for each of single, duplex and 180-degree rotation copying respectively.  
For the single copying or the surface of the duplex copying, adjusts the ADJUST DATA1 (surface).  
For the rear side of the duplex copying, adjusts the ADJUST DATA2 (rear side).  
For the 180-degree rotation copying, adjusts the ADJUST DATA3 (180-degree rotation).

### Réglage de l'axe de l'original du DP.

1. Exécuter le mode d'entretien U072 et régler l'exemple de copie pour la copie recto, la copie recto-verso et la copie avec rotation de 180 degrés respectivement.  
Pour la copie recto ou la surface de la copie recto-verso, régler ADJUST DATA1 (régler données1) (surface).  
Pour le verso de la copie recto-verso, régler ADJUST DATA2 (régler données2) (verso).  
Pour la copie avec rotation de 180 degrés, régler ADJUST DATA3 (régler données3) (rotation de 180 degrés).

### Ajuste de la línea de centro del original del DP.

1. Active el modo de mantenimiento U072 y ajuste el ejemplo de copia para el copiado por una cara, para el copiado dúplex y para el copiado con giro de 180 grados, respectivamente.  
Para el copiado por una cara o para el anverso en el copiado dúplex, ajuste ADJUST DATA1 (ajustar datos 1) (anverso).  
Para el reverso en el copiado dúplex, ajuste ADJUST DATA2 (ajustar datos 2) (reverso).  
Para el copiado con giro de 180 grados, ajuste ADJUST DATA3 (ajustar datos 3) (giro de 180 grados).

### Einstellen der Originalmittellinie des DP.

1. Den Wartungsmodus U072 einstellen und das Kopierbeispiel für jede Einzelkopie, Duplexkopie und um 180 Grad gedrehte Kopie einstellen.  
Für die Einzelkopie oder die Oberfläche der Duplexkopie ADJUST DATA1 (EINSTELLDATEN1) (Oberfläche) einstellen.  
Für die Rückseite der Duplexkopie ADJUST DATA2 (EINSTELLDATEN2) (Rückseite) einstellen.  
Für die um 180 Grad gedrehte Kopie ADJUST DATA3 (EINSTELLDATEN3) (Drehung um 180 Grad) einstellen.

### Regolazione della linea centrale del DP.

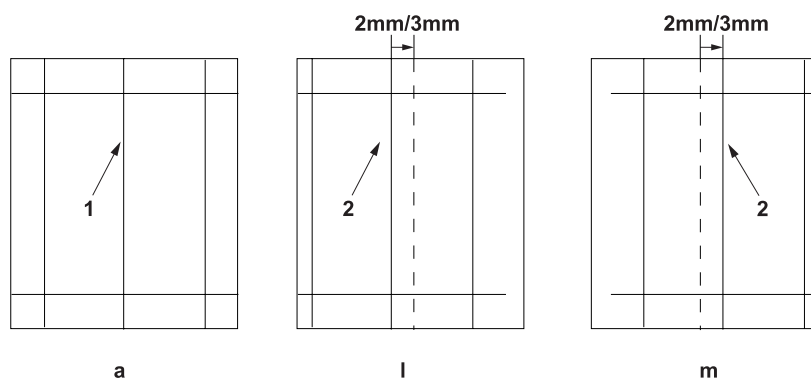
1. Impostare la modalità di manutenzione U072 e regolare l'esempio di copia rispettivamente per ogni esecuzione di copia singola, duplex e in rotazione di 180 gradi.  
Per la copia singola o per la superficie della copia duplex, regola ADJUST DATA1 (REGOLAZIONE DATI1) (superficie).  
Per il lato posteriore della copia duplex, regola ADJUST DATA2 (REGOLAZIONE DATI2) (lato posteriore).  
Per la copia in rotazione di 180 gradi, regola ADJUST DATA3 (REGOLAZIONE DATI3) (rotazione 180 gradi).

### 調整 DP 原稿中心線。

1. 設定維修模式 U072，並分別調整每次單面、雙面和 180 度旋轉複印的複印樣本。  
對於單面複印或雙面複印表面，調整 ADJUST DATA1（調整數據 1）（表面）。  
對於雙面複印的後部，調整 ADJUST DATA2（調整數據 2）（後部）。  
對於 180 度旋轉複印，調整 ADJUST DATA3（調整數據 3）（180 度旋轉）。

### DP 原稿センター位置調整

1. メンテナンスモード U072 をセットし、コピーサンプルの片面、両面、180 度回転別に調整を行う。  
片面の場合、両面の表の場合、ADJUST DATA1（表面）を調整する。  
両面の裏の場合、ADJUST DATA2（裏面）を調整する。  
180 度回転の場合、ADJUST DATA3（180 度回転）を調整する。



## 2. Adjust the values.

If the center moves more front, copy example (l): Increases the value.

If the center moves inner, copy sample (m): Decreases the value.

Amount of change per step: 0.085 mm

## 3. Perform a test copy.

## 4. Repeat the steps 1 to 3 above until the gap of line (2) of copy example shows the reference value.

<Reference value> Horizontal difference of center line (2) for the single copying:  $\pm 2$  mm

Horizontal difference of center line (2) for the duplex copying:  $\pm 3$  mm

## 2. Régler les valeurs.

Pour l'exemple de copie (l) dont l'axe se déplace davantage vers l'avant : augmenter la valeur.

Pour l'exemple de copie (m) dont l'axe se déplace vers l'intérieur : diminuer la valeur.

Changement par graduation d'échelle : 0,085 mm

## 3. Effectuer une copie de test.

## 4. Répéter les étapes 1 à 3 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.

<Valeur de référence> Différence horizontale de l'axe (2) pour la copie recto :  $\pm 2$  mm

Différence horizontale de l'axe (2) pour la copie recto-verso :  $\pm 3$  mm

## 2. Ajuste los valores.

Si el centro se desplaza más hacia el frente, ejemplo de copia (l): aumenta el valor.

Si el centro se desplaza hacia dentro, ejemplo de copia (m): disminuye el valor.

Magnitud del cambio por incremento: 0,085 mm

## 3. Haga una copia de prueba.

## 4. Repita los pasos 1 a 3 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.

<Valor de referencia> Diferencia horizontal de la línea de centro (2) para el copiado por una cara:  $\pm 2$  mm

Diferencia horizontal de la línea de centro (2) para el copiado dúplex:  $\pm 3$  mm

## 2. Die Werte einstellen.

Wenn die Mitte nach vorne verlagert ist, Kopierbeispiel (l): Den Wert erhöhen.

Wenn die Mitte nach innen verlagert ist, Kopierbeispiel (m): Den Wert verringern.

Änderung pro Schritt: 0,085 mm

## 3. Eine Testkopie erstellen.

## 4. Die Schritte 1 bis 3 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.

<Bezugswert> Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie:  $\pm 2$  mm

Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie:  $\pm 3$  mm

## 2. Regolare i valori.

Se il centro si sposta più avanti, esempio di copia (1): aumenta il valore.

Se il centro si sposta verso l'interno, esempio di copia (m): riduce il valore.

Entità modifica per passo: 0,085 mm

## 3. Eseguire una copia di prova

## 4. Ripetere le operazioni sopra descritte da 1 a 3 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.

<Valore di riferimento> Differenza orizzontale della linea centrale (2) per la copia singola:  $\pm 2$  mm

Differenza orizzontale della linea centrale (2) per la copia duplex:  $\pm 3$  mm

## 2. 調整数値。

如果中心移动更靠前，复印样本 (1): 增大数值。

如果中心移动更靠内，复印样本 (m): 减小数值。

按步骤的更改量: 0.085mm

## 3. 进行测试复印。

## 4. 重复上述步骤 1 至 3 直到复印样本上的线 (2) 的间隙显示标准值。

<标准值> 单面复印时中心线 (2) 的水平差距:  $\pm 2$ mm

双面复印时中心线 (2) 的水平差距:  $\pm 3$ mm

## 2. 設定値を調整する。

センターが手前にずれている場合 コピーサンプル (1): 設定値を上げる

センターが奥にずれている場合 コピーサンプル (m) 設定値を下げる

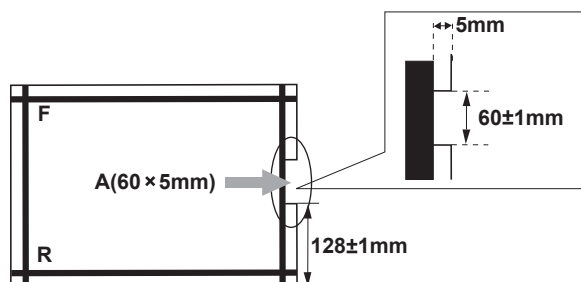
1 ステップ当たりの変化量: 0.085mm

## 3. テストコピーを行う。

## 4. コピーサンプルの中心線 (2) ずれが基準値内になるまで手順 1 ～ 3 を繰り返す。

<基準値> 片面の場合、中心線 (2) の左右ずれ:  $\pm 2$ mm 以内

両面の場合、中心線 (2) の左右ずれ:  $\pm 3$ mm 以内



#### [Adjustment using the DP auto adjustment original]

1. Direct F and R of the DP auto adjustment original upward, and set the original from the place where F and R are marked.
2. Set the maintenance mode U411. Press the DP (FACE UP) key, the INPUT key and the START key in order to adjust the surface.
3. When RESULT OK 00 appears on the display, the adjustment is completed. If ERROR XX appears, the adjustment is failed. Check the original set position and repeat the steps 1 to 2 until RESULT OK 00 appears. **For details, see the service manual.**

#### [Réglage à l'aide de la fonction de réglage automatique d'original du DP]

1. Diriger F (avant) et R (arrière) de la fonction de réglage automatique d'original du DP vers le haut, puis placer l'original à partir de l'emplacement des repères F et R.
2. Exécuter le mode d'entretien U411. Appuyer sur les touches DP (FACE UP) (DP - face vers le haut), INPUT (entrer) et START (démarrer) pour régler la surface.
3. Lorsque le message RESULT OK 00 (résultat OK 00) s'affiche sur l'écran, le réglage est terminé. Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de réglage de l'original et répéter les étapes 1 et 2 jusqu'à ce que le message RESULT OK 00 (résultat OK 00) s'affiche. **Pour plus de détails, se reporter au manuel d'entretien.**

#### [Ajuste usando el original de ajuste automático del DP]

1. Dirija F y R del original de ajuste automático del DP hacia arriba, y coloque el original a partir del sitio en que están marcados F y R.
2. Active el modo de mantenimiento U411. Pulse la tecla DP (FACE UP) (cara arriba), la tecla INPUT (entrada) y la tecla START (inicio) para ajustar el anverso.
3. Cuando aparece en la pantalla RESULT OK 00 (resultado correcto 00), el ajuste ha finalizado. Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición del original colocado y repita los pasos 1 a 2 hasta que aparezca RESULT OK 00 (resultado correcto 00). **Para mas detalles, lea el manual de servicio.**

#### [Einstellung mit der automatischen Einstellung des Originals des DP]

1. F und R der automatischen Einstellung des Originals des DP nach oben zeigen und das Original an die mit F und R markierte Stelle setzen.
2. Den Wartungsmodus U411 einstellen. Die Tasten DP (FACE UP) (DP SCHRIFTSEITE NACH OBEN), INPUT (EINGABE) und START der Reihe nach drücken, um die Oberfläche einzustellen.
3. Bei richtigem Ergebnis wird RESULT OK 00 (ERGEBNIS OK 00) auf der Anzeige angezeigt, und die Einstellung ist abgeschlossen. Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Die eingestellte Originalposition prüfen und die Schritte 1 und 2 wiederholen, bis RESULT OK 00 (ERGEBNIS OK 00) angezeigt wird. **Weitere Einzelheiten siehe Wartungsanleitung.**

#### [Regolazione con l'autoregolazione originale DP]

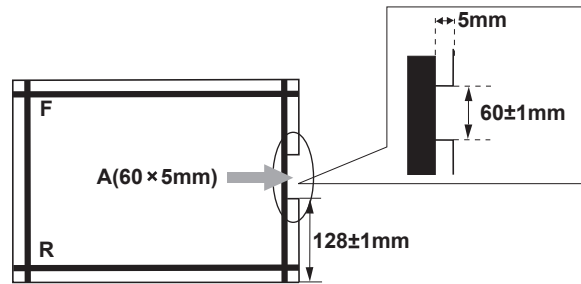
1. Orientare F e R dell'autoregolazione originale DP verso l'alto e disporre l'originale rispetto ai punti in cui sono contrassegnati F e R.
2. Impostare la modalità di manutenzione U411. Premere il tasto DP (FACE UP, FACCIAA SU), il tasto INPUT (IMMETTI) e il tasto START (AVVIA) per regolare la superficie.
3. Quando sul display appare RESULT OK 00 (RISULTATO OK 00), la regolazione è completata. Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni da 1 a 3 fino a quando non viene visualizzato RESULT OK 00 (RISULTATO OK 00). **Per ulteriori dettagli leggere il manuale d'istruzioni.**

#### [使用 DP 自动调整原稿的调整]

1. 将 DP 自动调整原稿的 F 和 R 向上，并在标有 F 和 R 的地方设定原稿。
2. 设定维修模式 U411。按 DP (FACE UP) (正面朝上) 键、INPUT (输入) 键和 START (开始) 键以调整表面。
3. 屏幕上出现 RESULT OK 00 (结果正常 00) 时，调整完成。  
如果出现 ERROR XX (错误 XX)，则调整失败。检查原稿设定位置并重复步骤 1 至 2，直到 RESULT OK 00 (结果正常 00) 出现。  
**请参见维修手册。**

#### [DP 自動調整原稿による調整]

1. DP 自動調整原稿の F、R を上に向け、F、R が書かれている方から DP 本体へセットする。
2. メンテナンスモード U411 をセットし、DP (FACE UP) キー、INPUT キー、START の順に押し、表面の調整を行う。
3. ディスプレイに RESULT OK 00 が表示されれば調整完了となる。  
ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、RESULT OK 00 が表示されるまで手順 1～2 を繰り返す。  
**詳細はサービスマニュアルを参照のこと。**



4. After completing the surface adjustment, direct F and R of the DP auto adjustment original downward and set the original by inserting the side where the F and R are marked into the DP first.
5. Set the maintenance mode U411. Press the DP (FACE DOWN) key, NORMAL TARGET key, START INPUT key and START in order to adjust the rear surface.
6. When RESULT OK 00 appears on the display, the adjustment is completed. If ERROR XX appears, the adjustment is failed. Check the original set position and repeat the steps 4 to 5 until RESULT OK 00 appears. **For details, see the service manual.**

4. Une fois le réglage de la surface effectué, diriger F (avant) et R (arrière) de la fonction de réglage automatique d'original du DP vers le bas et placer l'original en introduisant en premier dans le DP le côté sur lequel F et R sont indiqués.
5. Exécuter le mode d'entretien U411. Appuyer sur les touches DP (FACE DOWN) (DP - FACE VERS LE BAS), NORMAL TARGET (CIBLE NORMALE), START INPUT (DÉMARRER ENTRÉE) puis START (DÉMARRER) afin de régler la surface arrière.
6. Lorsque le message RESULT OK 00 (résultat OK 00) s'affiche sur l'écran, le réglage est terminé. Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de réglage de l'original et répéter les étapes 4 et 5 jusqu'à ce que le message RESULT OK 00 (résultat OK 00) s'affiche. **Pour plus de détails, se reporter au manuel d'entretien.**

4. Una vez hecho el ajuste del anverso, dirija F y R del original de ajuste automático del DP hacia abajo y coloque el original insertando en el DP, en primer lugar, el lado en el que están marcados F y R.
5. Active el modo de mantenimiento U411. Pulse las teclas DP (FACE DOWN) (CARA ABAJO), NORMAL TARGET (DESTINO NORMAL), START INPUT (INICIAR ENTRADA) y START (INICIO) para ajustar el reverso.
6. Cuando aparece en la pantalla RESULT OK 00 (resultado correcto 00), el ajuste ha finalizado. Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición del original colocado y repita los pasos 4 a 5 hasta que aparezca RESULT OK 00 (resultado correcto 00). **Para mas detalles, lea el manual de servicio.**

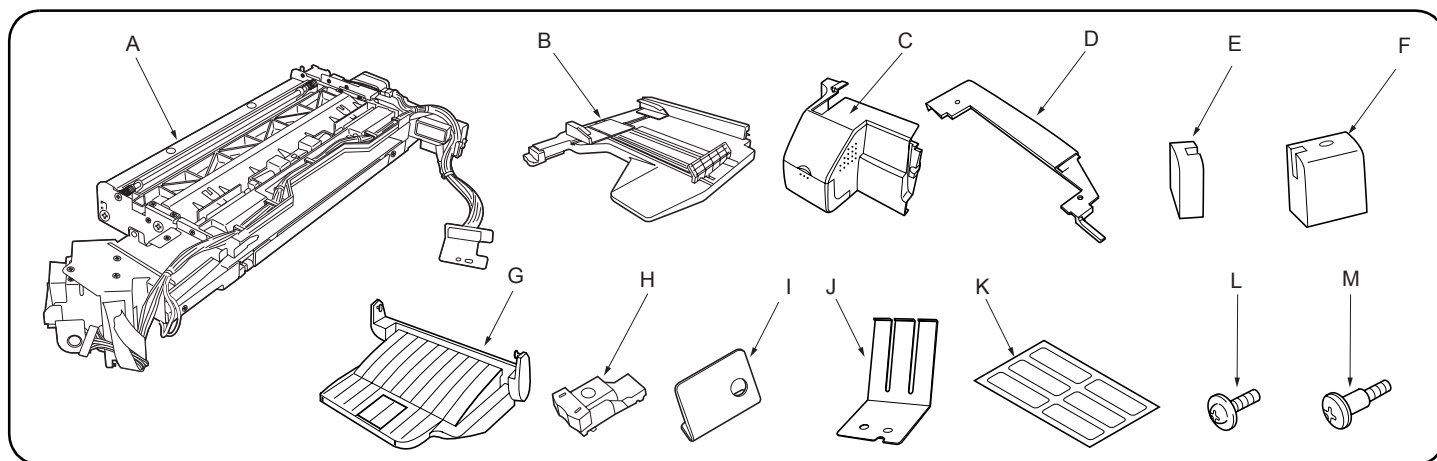
4. Nach dem Abschluss der Oberflächeneinstellung F und R der automatischen Einstellung des Originals des DP nach unten zeigen und das Original einstellen, indem die mit F und R markierte Seite zuerst in den DP eingeführt wird.
5. Den Wartungsmodus U411 einstellen. Die Tasten DP (FACE DOWN) (SCHRIFTSEITE NACH UNTEN), NORMAL TARGET (NORMALZIEL), START INPUT (EINGABE) und START der Reihe nach drücken, um die hintere Oberfläche einzustellen.
6. Bei richtigem Ergebnis wird RESULT OK 00 (ERGEBNIS OK 00) auf der Anzeige angezeigt, und die Einstellung ist abgeschlossen. Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Die eingestellte Originalposition prüfen und die Schritte 4 und 5 wiederholen, bis RESULT OK 00 (ERGEBNIS OK 00) angezeigt wird. **Weitere Einzelheiten siehe Wartungsanleitung.**

4. Una volta conclusa la regolazione della superficie, orientare F e R dell'autoregolazione originale DP verso il basso e disporre l'originale inserendo nel DP prima il lato su cui sono contrassegnati F e R.
5. Impostare la modalità di manutenzione U411. Premere il tasto DP (FACE DOWN, FACCIA GIÙ), il tasto NORMAL TARGET (DESTINAZIONE NORMALE), il tasto START INPUT (AVVIA INPUT) e START (AVVIA) per regolare la superficie posteriore.
6. Quando sul display appare RESULT OK 00 (RISULTATO OK 00), la regolazione è completata. Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni da 4 a 5 fino a quando non viene visualizzato RESULT OK 00 (RISULTATO OK 00). **Per ulteriori dettagli leggere il manuale d'istruzioni.**

4. 完成表面调整后，将 DP 自动调整原稿的 F 和 R 向下，并首先将标有 F 和 R 的一侧插入 DP 来设定原稿。
5. 设定维修模式 U411。按 DP FACE DOWN（正面朝下）键、NORMAL TARGET（常规目标）键、START INPUT（开始输入）键和 START（启动）键以调整后表面。
6. 屏幕上出现 RESULT OK 00（结果正常 00）时，调整完成。  
如果出现 ERROR XX（错误 XX），则调整失败。检查原稿设定位置并重复步骤 4 至 5，直到 RESULT OK 00（结果正常 00）出现。  
**请参见维修手册。**

4. 表面の調整完了後、DP 自動調整原稿の F、R を下に向け、F、R が書かれている方から DP 本体へセットする。
5. メンテナンスモード U411 をセットし、DP (FACE DOWN) キー、NORMAL TARGET キー、START キー、INPUT キー、START の順に押し、裏面の調整を行う。
6. ディスプレイに RESULT OK 00 が表示されれば調整完了となる。  
ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、RESULT OK 00 が表示されるまで手順 4～5 を繰り返す。  
**詳細はサービスマニュアルを参照のこと。**

# **INSTALLATION GUIDE FOR BUILT-IN FINISHER**



## English

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A Transfer unit .....	1
B Intermediate tray .....	1
C Staple cover .....	1
D Large ejection cover .....	1

E Front ejection cover .....	1
F Rear ejection cover .....	1
G Copy tray .....	1
H Staple cartridge .....	1
I Flat spring ejection .....	1
J Ground plate .....	1
K Pull label .....	1
L TP screw M3 x 05 .....	7
M Operation section securing pin .....	1

## Français

### Pièces fournies

A Unité de transfert .....	1
B Plateau intermédiaire .....	1
C Couvercle d'agrafes .....	1
D Grand couvercle d'éjection .....	1

E Couvercle d'éjection avant .....	1
F Couvercle d'éjection arrière .....	1
G Plateau à copies .....	1
H Cartouche d'agrafes .....	1
I Dispositif d'éjection à ressort plat .....	1
J Plaque de masse .....	1
K Etiquette Tirez .....	1
L Vis TP M3 x 05 .....	7
M Broche de fixation de la section de commande .....	1

## Español

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B Bandeja intermedia .....	1
C Cubierta de grapas .....	1
D Cubierta de expulsión grande .....	1

E Cubierta de expulsión frontal .....	1
F Cubierta de expulsión trasera .....	1
G Bandeja de copias .....	1
H Cartucho de grapas .....	1
I Expulsión por resorte plano .....	1
J Placa a tierra .....	1
K Etiqueta de tiro .....	1
L Tornillo TP M3 x 05 .....	7
M Pasador de fijación de la sección de funcionamiento .....	1

## Deutsch

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D Große Auswurfabdeckung .....	1

E Vordere Auswurfabdeckung .....	1
F Hintere Auswurfabdeckung .....	1
G Kopienablage .....	1
H Heftklammerpatrone .....	1
I Blattfederauswurf .....	1
J Grundplatte .....	1
K Abziehaufkleber .....	1
L TP-Schraube M3 x 05 .....	7
M Bedienteil-Sicherungsstift .....	1

## Italiano

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B Vassoio intermedio .....	1
C Coperchio della graffatrice .....	1
D Coperchio grande di espulsione carta .....	1

E Coperchio frontale di espulsione carta .....	1
F Coperchio posteriore di espulsione carta .....	1
G Vassoio copie .....	1
H Cartuccia della graffatrice .....	1
I Molla piatta a espulsione .....	1
J Piastra di terra .....	1
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L Vite TP M3 x 05 .....	7
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## 简体中文

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B 中间托盘 .....	1
C 装订订盖板 .....	1
D 排纸盖板(大) .....	1

E 排纸盖板(前) .....	1
F 排纸盖板(后) .....	1
G 排纸托盘 .....	1
H 订书钉盒 .....	1
I 板簧排纸器 .....	1
J 地线板 .....	1
K PULL 标签 .....	1
L 螺丝 M3 x 05TP .....	7

M 操作部固定卡销 .....	1
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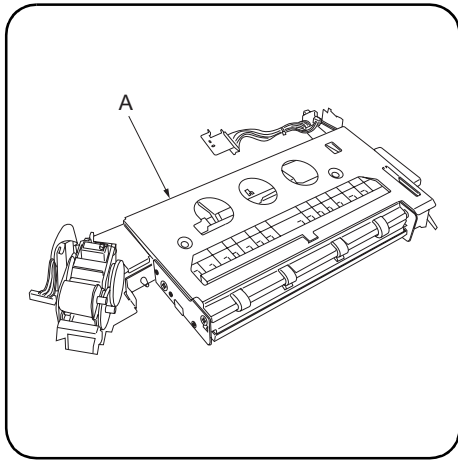
## 日本語

### 付属品

A 搬送ユニット .....	1
B 中間トレイ .....	1
C ステープルカバー .....	1
D 排出カバー大 .....	1

E 排出カバー前 .....	1
F 排出カバー後 .....	1
G 排出トレイ .....	1
H ステープルカートリッジ .....	1
I 板バネ排出 .....	1
J アース版 .....	1
K PULL ラベル .....	1
L ビス M3 x 05TP .....	7

M 操作部固定ピン .....	1
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#### Note

When placing the transfer unit (A) on the floor or the like, be sure to place it upside down. If not, the stapler mounting plate may be deformed, resulting in a malfunction.

#### Remarque

Lorsqu'on place l'unité de transfert (A) sur le sol ou sur une surface équivalente, veiller à la placer sens dessus dessous. Sinon, la plaque de montage de l'agrafeuse risque d'être déformée, ce qui causera des anomalies de fonctionnement.

#### Nota

Cuando se coloca la unidad de transferencia (A) en el piso o similar, asegúrese de colocarlo al revés. de lo contrario, la placa de montaje del grapador puede deformarse, provocando un mal funcionamiento.

#### Hinweis

Wenn die Transfereinheit (A) auf den Boden oder dergleichen gestellt wird, muss sie auf den Kopf gestellt werden. Anderenfalls kann die Heftermontageplatte verformt werden, was zu einer Funktionsstörung führt.

#### Nota

Quando si posiziona l'unità di trasferimento (A) sul pavimento o in luoghi simili, occorre posizionarla rovesciata. In caso contrario, la piastra di montaggio della pinzatrice potrebbe venire deformata, provocando malfunzionamenti.

#### [注意事項]

将输送组件(A)放在地板等上时,务必翻过来放置。否则会使装订器安装板变形,造成故障的原因。

#### [注意事項]

搬送ユニット(A)を床等に置く場合には、必ず裏返しにした状態で置く。そのまま置くとステープラ取付板が変形し、不具合の原因となる。

#### Preparation

When installing a finisher, be sure to turn the MFP main switch off and disconnect the MFP power plug from the wall outlet.

#### Préparation

Lors de l'installation d'un finisseur, veiller à mettre l'interrupteur principal du MFP hors tension et à débrancher la fiche d'alimentation du MFP de la prise murale.

#### Preparación

Cuando se instala un finalizador, asegúrese de desconectar el interruptor principal del MFP y desenchufar el cable eléctrico del tomacorriente de la pared.

#### Vorbereitung

Schalten Sie vor der Installation des Fixierers unbedingt den Hauptschalter des MFP aus, und ziehen Sie den Netzstecker des MFP von der Netzsteckdose ab.

#### Preparazione

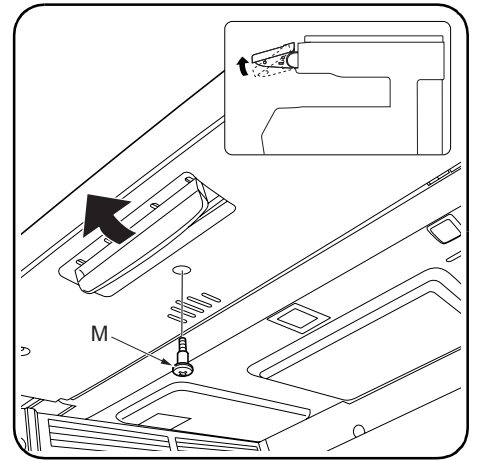
Al momento dell'installazione della finitrice, assicuratevi innanzitutto di spegnere l'MFP e scollegare il cavo di alimentazione dalla presa di rete.

#### [ 安装步骤 ]

安装装订器时,必须先切断MFP主机的主电源开关,并拔下MFP主机上的电源插头后,再进行安装作业。

#### [ 取付手順 ]

フィニッシャーを取り付ける際は、必ず MFP 本体のメインスイッチを OFF にし、電源プラグを外して作業を行うこと。



1. Pull the lever toward the front side to raise the operation section, and secure it using the operation section securing pin (M).

#### Note

After the finisher is installed, the operation section is secured and the angle cannot be adjusted.

2. Open the left transfer cover and the front cover.

1. Tirer le levier vers l'avant pour élever la section de commande, et le fixer à l'aide de la broche de fixation de la section de commande (M).

#### Note

Une fois que le finisseur a été installé, la section de commande est fixée et il est impossible de régler l'angle.

2. Ouvrir le couvercle de transfert gauche et le couvercle avant.

1. Tira de la palanca hacia el lado delantero para que suba la sección de funcionamiento y asegure utilizando el pasador de fijación de la sección de funcionamiento (M).

#### Note

Después de instalar el finalizador, la sección de funcionamiento queda fijada y no puede ajustar el ángulo.

2. Abra la cubierta de transferencia izquierda y la cubierta frontal.

1. Den Hebel zur Vorderseite ziehen, um den Bedienteil anzuheben, und diesen mit dem Bedienteil-Sicherungsstift (M) sichern.

#### Hinweis

Nach der Installation des Fixierers wird der Bedienteil gesichert, und der Winkel kann nicht mehr verändert werden.

2. Die linke Transferabdeckung und die Frontabdeckung öffnen.

1. Tirare la leva verso il lato frontale per sollevare la sezione di comando, e fissarla usando il perno di fissaggio della sezione di comando (M).

#### Note

Dopo che avete installato il finitore, la sezione di comando è stata assicurata e l'angolo non può essere regolato.

2. Aprite il coperchio di trasferimento sinistro e quindi il coperchio frontale.

1. 将把柄向跟前拉,使操作部推向上方,然后用操作部固定卡销(M)进行固定。

#### 注意:

安装装订器时,操作部已被固定,不能进行角度调整。

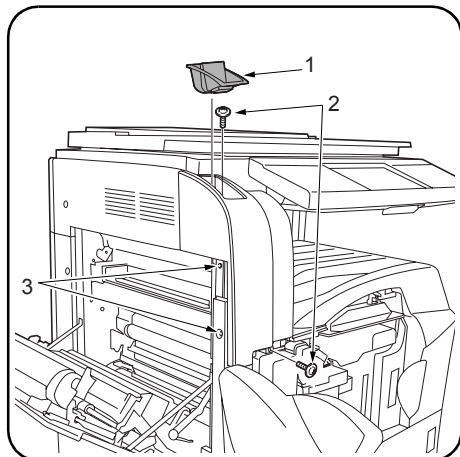
2. 打开输送左盖板和前盖板。

1. レバーを手前に引いて、操作部を上方向に持ち上げ、操作部固定ピン (M) で固定する。

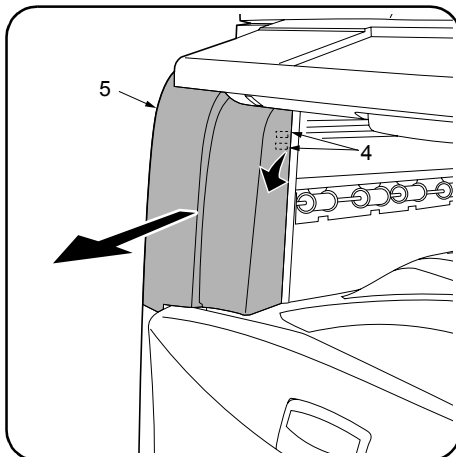
#### 注意

フィニッシャーを取り付けると、操作部は固定となり、角度調整はできません。

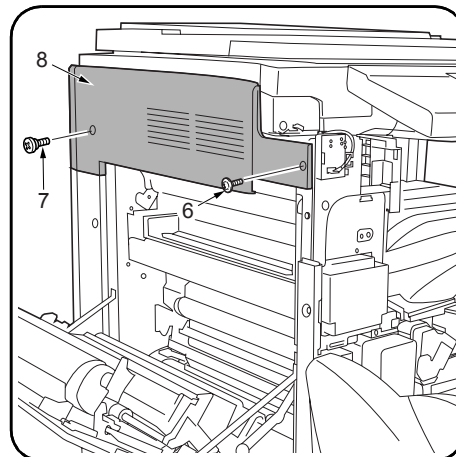
2. 搬送左カバーおよび前カバーを開ける。



**3.** Remove the staple holder (1), remove the two screws (2) from the upper side and the front side, and loosen the two screws (3) on the left side.



**4.** Open the hook (4) on the right side and remove the left front cover (5).



**5.** Remove the screw (6) and the pin (7) to remove the upper left cover (8).

**3.** Retirer le support d'agrafes (1), retirer les deux vis (2) du côté supérieur et du côté avant, et desserrer les deux vis (3) du côté gauche.

**4.** Ouvrir le crochet (4) se trouvant sur le côté droit et retirer le couvercle avant gauche (5).

**5.** Retirer la vis (6) et la broche (7) pour enlever le couvercle supérieur gauche (8).

**3.** Desmonte el soporte de grapas (1), saque los dos tornillos (2) del lado superior y el lado delantero y afloje los dos tornillos (3) en el lado izquierdo.

**4.** Abra el gancho (4) en el lado derecho y desmonte la cubierta delantera izquierda (5).

**5.** Quite el tornillo (6) y el pasador (7) para desmontar la cubierta superior izquierda (8).

**3.** Den Heftklammerhalter (1) entfernen, die zwei Schrauben (2) an der Ober- und Vorderseite herausdrehen, und die zwei Schrauben (3) auf der linken Seite lösen.

**4.** Den Haken (4) auf der rechten Seite öffnen, und die linke Frontabdeckung (5) abnehmen.

**5.** Die Schraube (6) und den Stift (7) entfernen, um die obere linke Abdeckung (8) abzunehmen.

**3.** Rimuovete il vassoio graffette (1), rimuovete le due viti (2) dal lato superiore e dal lato frontale e allentate le due viti (3) sul lato sinistro.

**4.** Aprite il gancio (4) che si trova sul lato destro e rimuovete il coperchio frontale sinistro (5).

**5.** Rimuovere la vite (6) e il perno (7) per rimuovere il coperchio superiore sinistro (8).

**3.** 拆下装订钉盒(1), 卸下上侧和前侧的2个螺丝(2), 接着松弛2个左侧螺丝(3)。

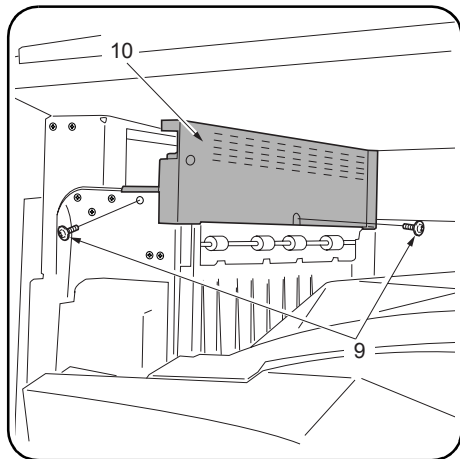
**4.** 打开右侧支架部(4), 取下左前盖板(5)。

**5.** 拆下1个螺丝(6)和1个卡销(7)后, 取下左上盖板(8)。

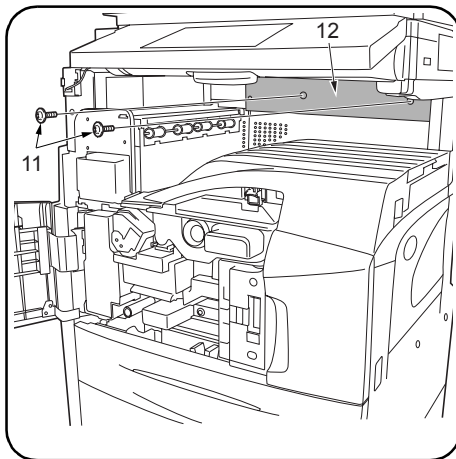
**3.** ステープルホルダー(1)を取り外し、上側と前側のビス(2)2本を外して、左側のビス(3)2本をゆるめる。

**4.** 右側の引っ掛け部(4)を開いて左前カバー(5)を取り外す。

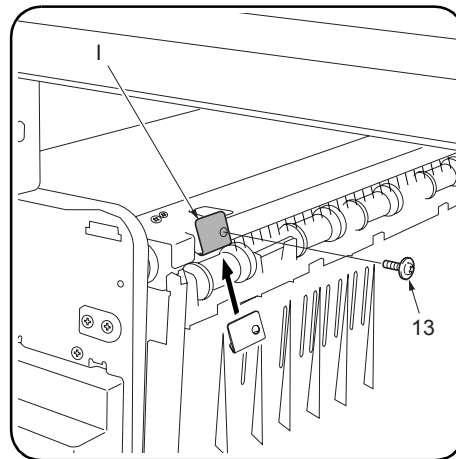
**5.** ビス(6)1本およびピン(7)1本を外して左上カバー(8)を取り外す。



6. Remove the two screws (9) and then remove the ejection cover (10) with the mounting plate.



7. Remove the two screws (11) and then remove the inner ejection cover (12).



8. Remove the screw (13) located at the front of the static charge eliminator of the MFP, fit the flat spring ejection (I) from the lower side, and secure it with the removed screw (13).

6. Enlever les deux vis (9), puis enlever le couvercle d'éjection (10) avec la plaque de montage.

7. Enlever les deux vis (11), puis enlever le couvercle d'éjection interne (12).

8. Retirer la vis (13) située à l'avant du dispositif d'élimination de charge statique du MFP, mettre en place le dispositif d'éjection à ressort plat (I) par le côté inférieur, puis le fixer à l'aide de la vis retirée (13).

6. Saque los dos tornillos (9) y desmonte la cubierta de expulsión (10) con la placa de montaje.

7. Saque los dos tornillos (11) y desmonte la cubierta de expulsión interior (12).

8. Quite el tornillo (13) ubicado en el frente del eliminador de carga estática del MFP, encaje la expulsión por resorte plano (I) del lado inferior y asegúrelo con el tornillo quitado (13).

6. Die zwei Schrauben (9) entfernen, und dann die Auswurfabdeckung (10) mit der Montageplatte abnehmen.

7. Die zwei Schrauben (11) entfernen, und dann die innere Auswurfabdeckung (12) abnehmen.

8. Die Schraube (13) an der Vorderseite des Entstörers für statische Aufladung des MFP entfernen, dann den Blattfederauswurf (I) von der Unterseite einpassen und mit der entfernten Schraube (13) befestigen.

6. Rimuovete ora le due viti (9) e quindi il coperchio di espulsione (10) con la piastra di montaggio.

7. Rimuovete le due viti (11) e quindi il coperchio interno di espulsione (12).

8. Rimuovere la vite (13) situata nella parte frontale dell'eliminatore di cariche statiche dell'MFP, montare la molla piatta a espulsione (I) nel lato inferiore e fissarla con la vite rimossa (13).

6. 卸下2个螺丝(9), 然后将排纸盖板(10)的整个安装板拆下。

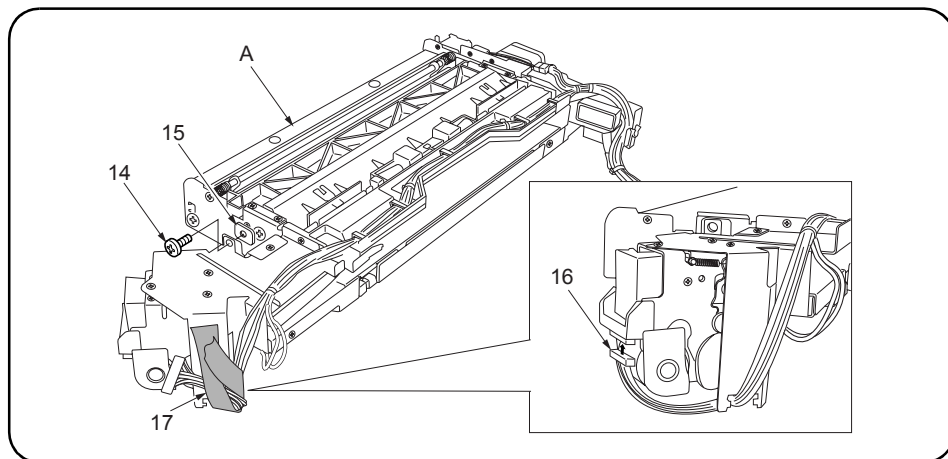
7. 卸下2个螺丝(11), 然后拆下排纸内盖板(12)。

8. 拆下本体上除静电器前的1个固定螺丝(13)后, 从下面嵌入板簧排纸器(I), 并用拆下的1个螺丝(13)加以固定。

6. ビス (9) 2 本を外し、排出カバー (10) を取付板ごと取り外す。

7. ビス (11) 2 本を外し、排出内カバー (12) を取り外す。

8. 本体の除電器手前の固定ビス (13) 1 本を取り外し、板バネ排出 (I) を下からはめ込み、取り外したビス (13) 1 本で取り付け。



9. Remove the blue screw (14) from the transfer unit (A) and then remove the securing plate (15).
10. Remove the securing tape (17) from the 13-pin connector (16), pass the wire under the stapler motor, and connect the wire with the 13-pin connector (16).

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9. Retirer la vis bleue (14) de l'unité de transfert (A) puis enlever la plaque de fixation (15).
  10. Retirer la bande de fixation (17) du connecteur à treize broches (16), passer le fil au-dessous du moteur de l'agrafeuse, et connecter le fil à l'aide du connecteur à treize broches (16).

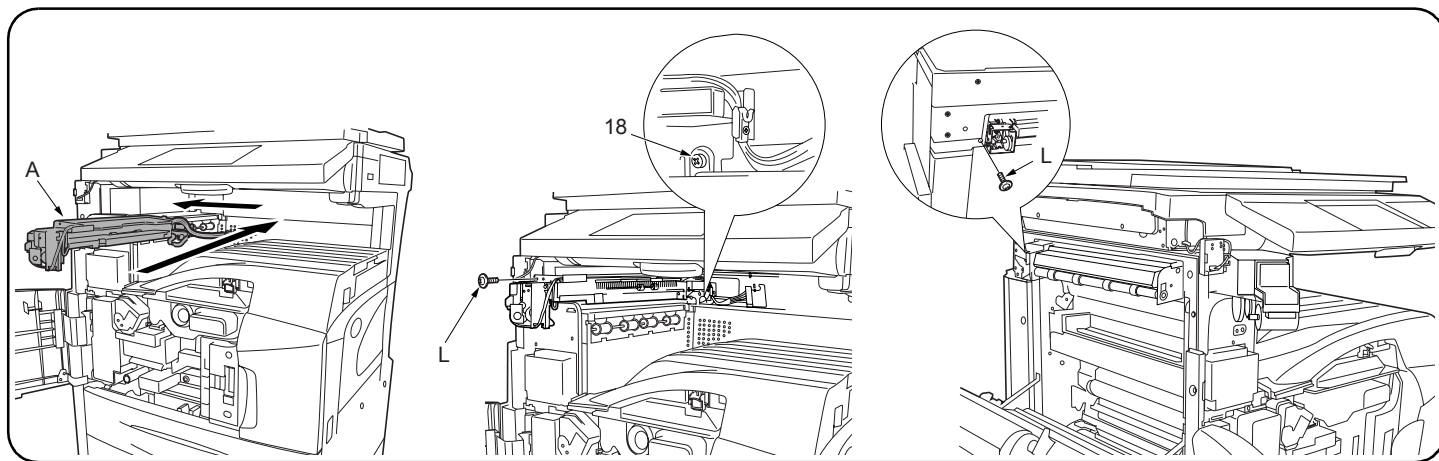
- 
9. Quite el tornillo azul (14) de la unidad de transferencia (A) y desmonte la placa de fijación (15).
  10. Despegue la cinta de fijación (17) del conector de 13 pasadores (16), pase el cable por debajo del motor del grapador y conecte el cable con el conector de 13 pasadores (16).

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9. Die blaue Schraube (14) von der Transfereinheit (A) entfernen, und dann die Halteplatte (15) abnehmen.
  10. Das Sicherungsband (17) vom 13-poligen Steckverbinder (16) entfernen, dann das Kabel unter dem Heftermotor hindurchführen und an den 13-poligen Steckverbinder (16) anschließen.

- 
9. Rimuovete la vite blu (14) dall'unità di trasferimento (A) e poi rimuovete la piastra di fissaggio (15).
  10. Rimuovere il nastri di sicurezza (17) dal connettore a 13 pin (16), far passare il filo sotto il motore della pinzatrice e collegare il filo con il connettore a 13 pin (16).

- 
9. 拆下输送组件(A)的1个蓝色螺丝(14)后，取下固定板(15)。
  10. 揭下13脚插头(16)的1条固定胶带(17)后，将电线穿过装订器马达下面连接13脚插头(16)。

- 
9. 搬送ユニット (A) の青ビス (14) 1 本を外して固定板 (15) を取り外す。
  10. 13P コネクタ (16) の固定テープ (17) 1 本を取り外し、ステープルモータの下に電線を通して 13P コネクタ (16) を接続する。



**11.** Insert the transfer unit (A) into the MFP from the front side and slide it to the left.

Secure the unit using two TP screws M3 × 05 (L) and the pin (18) that has been fitted to the transfer unit (A).

**11.** Insérer l'unité de transfert (A) dans le MFP depuis l'avant et le faire glisser vers la gauche.

Fixer l'unité avec deux vis TP M3 × 05 (L) et la goupille (18) qui a été ajustée dans l'unité de transfert (A).

**11.** Inserte la unidad de transferencia (A) en el MFP desde el lado delantero y deslice hacia la izquierda.

Asegure la unidad utilizando dos tornillos TP M3 × 05 (L) y el pasador (18) colocado en la unidad de transferencia (A).

**11.** Die Transfereinheit (A) von vorn in den MFP einführen und nach links schieben.

Die Einheit mit zwei TP-Schrauben M3 × 05 (L) und dem an der Transfereinheit (A) angebrachten Stift (18) sichern.

**11.** Inserite nell'MFP l'unità di trasferimento (A) dal lato frontale e quindi fatela scorrere a sinistra.

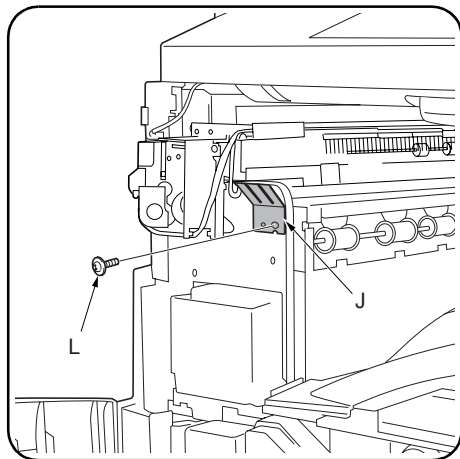
Fissate l'unità usando due viti TP M3 × 05 (L) e il perno (18) che avete inserito nell'unità di trasferimento (A).

**11.** 从MFP主机的前面插入输送组件(A)，并向左侧滑动。

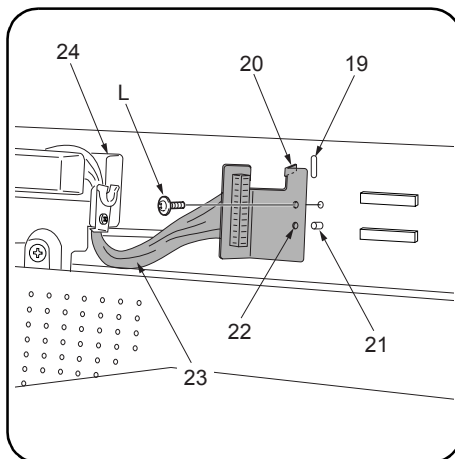
用2个螺丝M3 × 05TP(L)和安装在输送组件(A)上的1个卡销(18)进行固定。

**11.** 搬送ユニット (A) を MFP 本体の機械前側より挿入し、左側にスライドする。

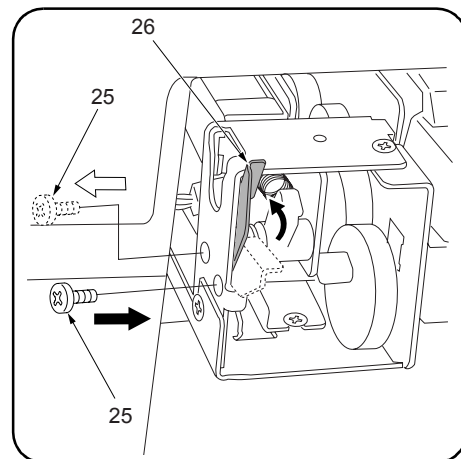
ビス M3 × 05TP(L) 2 本と搬送ユニット (A) に取り付けられているピン (18) 1 本で固定する。



**12.** Fit the ground plate (J) using a TP screw M3 × 05 (L).



**13.** Fit the hook (20) and the hole (22) of the transfer unit (A) to the oblong hole (19) and the projection (21) of the frame of the MFP and secure the unit using a TP screw M3 × 05 (L).  
Arrange the cable (23) to position it under the metal fittings (24) .



**14.** Remove the screw (25) from the left rear side of the MFP, turn the lever (26) upward, and fit the screw (25) again to the lower hole.

**12.** Placer la plaque de masse (J) à l'aide d'une vis TP M3 × 05 (L).

**13.** Placer le crochet (20) et l'orifice (22) de l'unité de transfert (A) dans l'orifice oblong (19) et dans la saillie (21) du cadre du MFP, et fixer l'unité à l'aide d'une vis TP M3 × 05 (L).  
Arranger le câble (23) pour le mettre en place au-dessous des garnitures en métal (24) .

**14.** Enlever la vis (25) du côté arrière gauche du MFP, tourner le levier (26) vers le haut, et replacer la vis (25) dans l'orifice inférieur.

**12.** Encaje la placa de tierra (J) utilizando un tornillo TP M3 × 05 (L).

**13.** Encaje el gancho (20) y el orificio (22) de la unidad de transferencia (A) al orificio alargado (19) y la saliente (21) del armazón del MFP y asegure la unidad utilizando un tornillo TP M3 × 05 (L).  
Instale el cable (23) para ubicarlos debajo de los herrajes de metal (24).

**14.** Saque el tornillo (25) del lado trasero del MFP, mueva la palanca (26) hacia arriba, y fije el tornillo (25) de nuevo en el orificio inferior.

**12.** Die Grundplatte (J) mit einer TP-Schraube M3 × 05 (L) befestigen.

**13.** Den Haken (20) und das Loch (22) der Transfereinheit (A) in das Langloch (19) und den Vorsprung (21) des MFP-Rahmens einpassen, und die Einheit mit einer TP-Schraube M3 × 05 (L) sichern.  
Das Kabel (23) unter den Metallbeschlägen (24) hindurchführen.

**14.** Die Schraube (25) von der linken Rückseite des MFP entfernen, den Hebel (26) nach oben drehen, und die Schraube (25) wieder in das untere Loch einpassen.

**12.** Montate la piastra di terra (J) usando una vite TP M3 × 05 (L).

**13.** Inserite il gancio (20) e il foro (22) dell'unità di trasferimento (A) nel foro oblungo (19) e nella sporgenza (21) del telaio dell'MFP e assicurate l'unità usando una vite TP M3 × 05 (L).  
Disponete il cavo (23) in modo da farlo scorrere al di sotto del supporto metallico (24).

**14.** Rimuovete la vite (25) dal lato posteriore sinistro dell'MFP, girate la leva (26) verso l'alto e inserite di nuovo la vite (25) nel foro inferiore.

**12.** 用1个螺丝M3 × 05TP(L)装上地线板(J)。

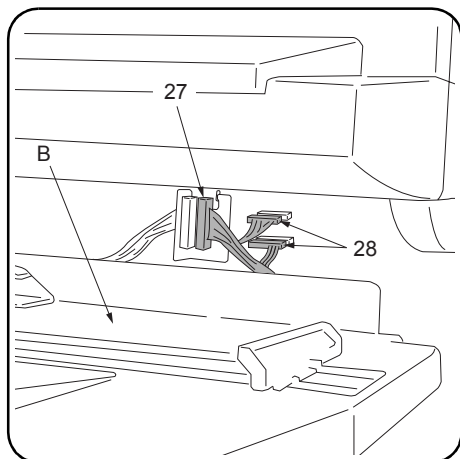
**13.** 将输送组件(A)的挂钩(20)和孔(22)对准MFP主机机架的长孔(19)和突起部(21)进行安装,并用1个螺丝M3 × 05TP(L)进行固定。  
应使电线(23)配置在金属件(24)的下侧。

**14.** 拆下MFP主机左后侧的1个螺丝(25), 将把柄(26)向上方转动, 再用螺丝(25)固定在下侧孔。

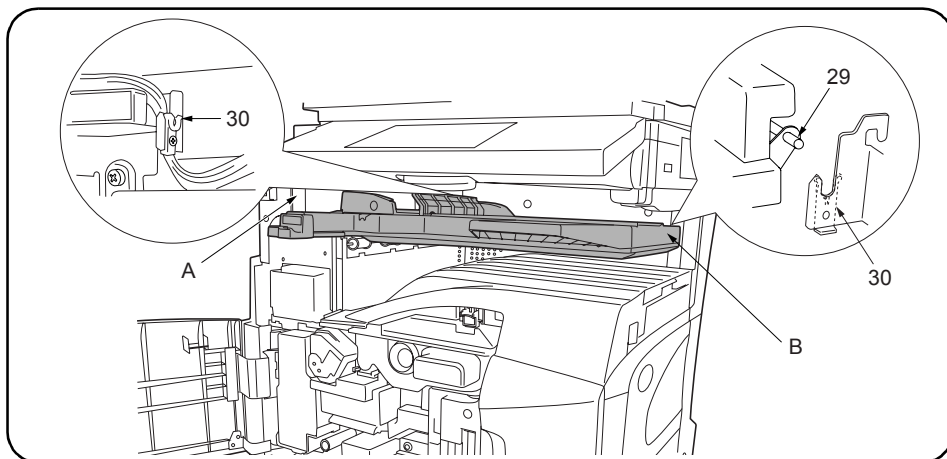
**12.** アース板 (J) をビス M3 × 05TP(L) 1 本で取り付ける。

**13.** 搬送ユニット (A) のフック (20) と穴 (22) を MFP 本体フレームの長穴 (19) と突起部 (21) に合わせて取り付け、ビス M3 × 05TP (L) 1 本で固定する。  
電線 (23) が金具 (24) の下側になるように配線する。

**14.** MFP 本体左後側のビス (25) 1 本を取り外し、レバー (26) を上方向に回転させ、下側の穴に再度ビス (25) を取り付け。



- 15.** Insert the intermediate tray (B) and connect the connector (white) (27) of the intermediate tray (B) to the transfer unit. Connect the connectors (gray) (28) to the connectors of the MFP as shown in the illustration.  
Connect the gray connector (28) with more pins to the upper connector and the gray connector (28) with less pins to the lower connector.



- 16.** Hang the right and left pins (29) of the intermediate tray (B) on the recessed portions (30) of the MFP and the transfer unit (A).  
Raise the intermediate tray (B) and set it as shown in the illustration.

- 15.** Insérer le plateau intermédiaire (B) et connecter le connecteur (blanc) (27) du plateau intermédiaire (B) à l'unité de transfert. Connecter les connecteurs (gris) (28) aux connecteurs du MFP comme montré dans l'illustration.  
Connecter le connecteur (gris) (28) avec le plus grand nombre de broches au connecteur supérieur et le connecteur (gris) (28) avec le plus petit nombre de broches au connecteur inférieur.

- 16.** Accrocher les goupilles droite et gauche (29) du plateau intermédiaire (B) sur les parties en retrait (30) du MFP et de l'unité de transfert (A).  
Elever le plateau intermédiaire (B) et le placer comme indiqué sur l'illustration.

- 15.** Inserte la bandeja intermediaria (B) y conecte el conector (blanco) (27) de la bandeja intermediaria (B) en la unidad de transferencia. Conecte los conectores (grises) (28) en los conectores del MFP tal como aparece en las figuras.  
Conecte el conector (gris) (28) con más patillas en el conector superior y el conector (gris) (28) con menos patillas en el conector inferior.

- 16.** Cuelgue los pasadores derecho e izquierdo (29) de la bandeja intermediaria (B) en las partes entradas (30) del MFP y la unidad de transferencia (A).  
Suba la bandeja intermediaria (B) y fije tal como aparece en la figura.

- 15.** Die Zwischenablage (B) einführen, und den Steckverbinder (weiß) (27) der Zwischenablage (B) an die Transfereinheit anschließen. Die Steckverbinder (grau) (28) an die Steckverbinder des MFP anschließen, wie in der Abbildung gezeigt.  
Schließen Sie den Steckverbinder (grau) (28) mit mehr Stiften an den oberen Steckverbinder, und den Steckverbinder (grau) (28) mit weniger Stiften an den unteren Steckverbinder an.

- 16.** Den rechten und linken Stift (29) der Zwischenablage (B) in die Aussparungen (30) des MFP und der Transfereinheit (A) einhängen.  
Die Zwischenablage (B) anheben und gemäß der Abbildung einstellen.

- 15.** Inserite il vassoio intermedio (B) e collegatene il connettore (bianco) (27) all'unità di trasferimento. Quindi collegate i connettori (grigio) (28) ai connettori dell'MFP, come illustrato in figura.  
Collegate il connettore (grigio) (28) con più contatti al connettore superiore e il connettore (grigio) (28) con meno contatti al connettore inferiore.

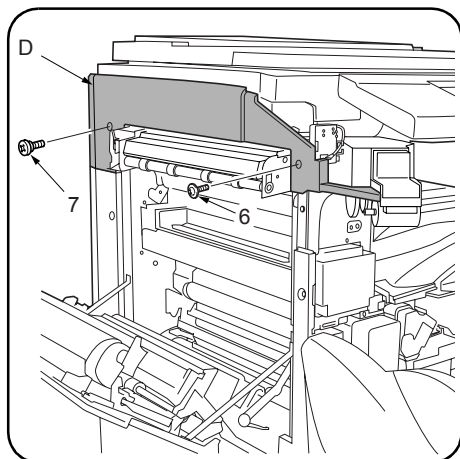
- 16.** Appendete i perni destro e sinistro (29) del vassoio intermedio (B) sulle parti rientranti (30) dell'MFP e dell'unità di trasferimento (A).  
Sollevate il vassoio intermedio (B) e regolatelo come illustrato in figura.

- 15.** 插入中间托盘(B), 将中间托盘(B)的连接插头(白)(27)连接在输送组件的连接插座上。如图所示, 将连接插头(灰色)(28)连接在本体的连接插座上。  
将连接插头(灰色)(28)的电线数多的一侧朝上, 电线数少的一侧朝下进行连接。

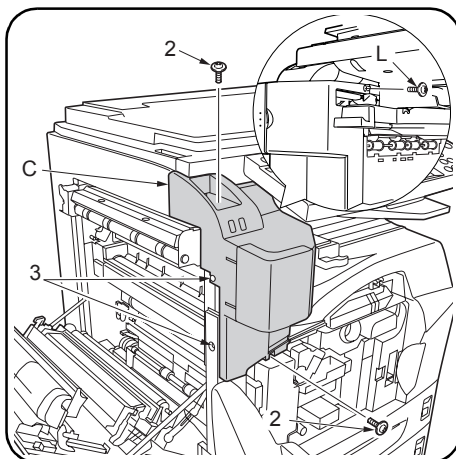
- 16.** 将中间托盘(B)的左右卡销(29)挂在本体和输送组件(A)的凹部(30)上。  
将中间托盘(B)向上提起, 如图所示进行固定。

- 15.** 中間トレイ (B) を挿入し、中間トレイ (B) のコネクタ (白) (27) を搬送ユニットのコネクタに接続する。コネクタ (グレー) (28) を図のように本体のコネクタに接続する。  
コネクタ (グレー) (28) は電線数の多い方を上側に、少ない方を下側に接続する。

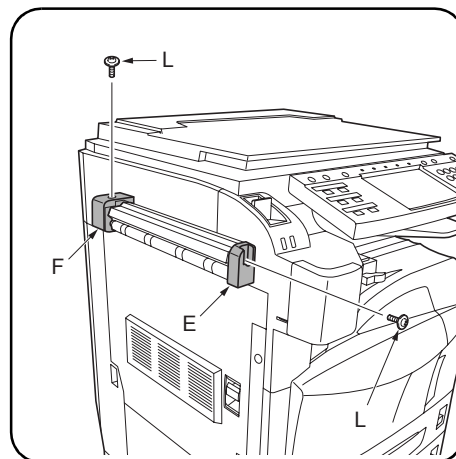
- 16.** 中間トレイ (B) の左右のピン (29) を本体および搬送ユニット (A) の凹部 (30) に引っ掛ける。  
中間トレイ (B) を持ち上げ、図のようにセットする。



**17.** Fit the large ejection cover (D) with the screw (6) that has fixed the upper left cover in step 5 and the screw (7) each.



**18.** Fit the staple cover (C) using the two screws (3) on the left side to secure and using the two screws (2) that have been removed in step 3 and a TP screw M3 × 05 (L).



**19.** Refit the staple holder that has been removed in step 3 to its original position and close the transfer left cover and the front cover.  
**20.** Attach the front ejection cover (E) and the rear ejection cover (F) using a TP screw M3 × 05 (L) each.

**17.** Fixer le grand couvercle d'éjection (D) à l'aide de la vis (6) qui fixait auparavant le couvercle supérieur gauche à l'étape 5 et la vis (7) respectivement.

**18.** Fixer le couvercle d'agrafes (C) à l'aide des deux vis (3) sur le côté gauche pour le fixer et à l'aide des deux vis (2) qui ont été enlevées dans l'étape 3 et une vis TP M3 × 05 (L).

**19.** Remettre le support d'agrafes retiré auparavant lors de l'étape 3 à sa position d'origine, et refermer le couvercle de transfert gauche et le couvercle avant.  
**20.** Fixer le couvercle d'éjection avant (E) et le couvercle d'éjection arrière (F) à l'aide d'une vis TP M3 × 05 (L).

**17.** Encaje la cubierta de expulsión grande (D) con el tornillo (6) que está fijado en la cubierta superior izquierda en el paso 5 y el tornillo (7) a cada una.

**18.** Encaje la cubierta de grapas (C) utilizando los dos tornillos (3) en el lado izquierdo para asegurar y utilizando los dos tornillos (2) que se retiraron en el paso 3 y un tornillo TP M3 × 05 (L).

**19.** Vuelva a colocar el soporte de grapas que fue desmontado en el paso 3 a su posición original y cierre la cubierta izquierda de transferencia y la cubierta delantera.  
**20.** Instale la cubierta de expulsión frontal (E) y la cubierta de expulsión trasera (F) utilizando un tornillo TP M3 × 05 (L) cada uno.

**17.** Die große Auswurfabdeckung (D) jeweils mit der Schraube (6), die in Schritt 5 an der oberen linken Abdeckung angebracht wurde, und der Schraube (7) befestigen.

**18.** Die Hefterabdeckung (C) zur Sicherung mit den zwei Schrauben (3) auf der linken Seite sowie mit den in Schritt 3 entfernten zwei Schrauben (2) und einer TP-Schraube M3 × 05 (L) befestigen.

**19.** Den in Schritt 3 entfernten Heftklammerhalter wieder an seiner ursprünglichen Stelle anbringen, und dann die linke Transferabdeckung und die Frontabdeckung schließen.  
**20.** Die vordere Auswurfabdeckung (E) und die hintere Auswurfabdeckung (F) mit je einer TP-Schraube M3 × 05 (L) befestigen.

**17.** Montate il coperchio grande di espulsione carta (D) con la vite (6) che fissa il coperchio superiore sinistro nel passo 5 e con una vite (7) per ciascuno.

**18.** Montate il coperchio della graffatrice (C) usando le due viti (3) sul lato sinistro per fissare e le due viti (2) che sono state rimosse nel passo 3 e una vite TP M3 × 05 (L).

**19.** Vuelva a colocar el soporte de grapas que fue desmontado en el paso 3 a su posición original y cierre la cubierta izquierda de transferencia y la cubierta delantera.  
**20.** Utilizando una vite TP M3 × 05 (L) ciascuno, montate il coperchio frontale di espulsione carta (E) ed il coperchio posteriore di espulsione carta (F).

17. 用步骤5固定的左上盖板的螺丝(6)和卡销(7)各1个, 装上排纸盖板(大)(D)。

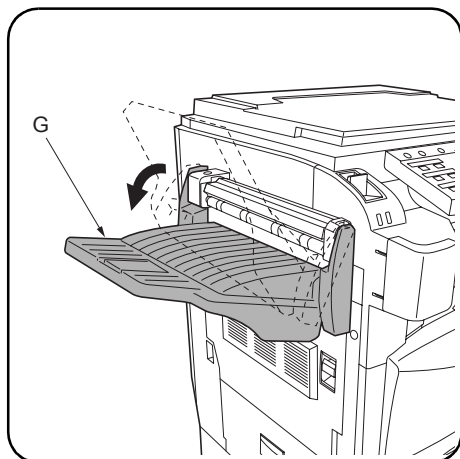
18. 用左侧的2个螺丝(3)固定装书钉盖板(C), 并用步骤3拆下的2个螺丝(2)和1个螺丝M3 × 05TP(L)进行固定。

19. 按原样装好在步骤3卸下的装书钉盒, 关闭输送左盖板和前盖板。  
20. 分别用1个螺丝M3 × 05TP(L)装上排纸盖板(前)(E)和排纸盖板(后)(F)。

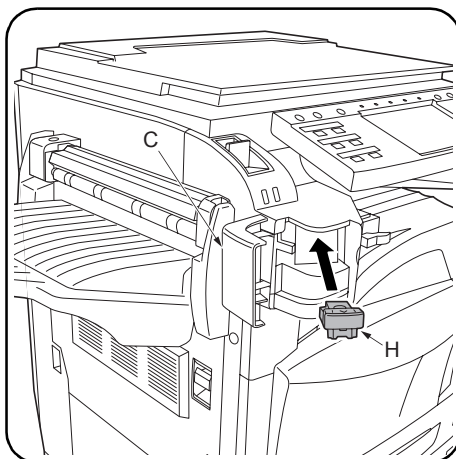
17. 手順5で左上カバーを固定していたビス(6)およびピン(7)各1本で、排出カバー大(D)を取り付ける。

18. ステープルカバー(C)を左側のビス(3)2本で固定し、手順3で外したビス(2)2本とビスM3 × 05TP(L)1本で取り付ける。

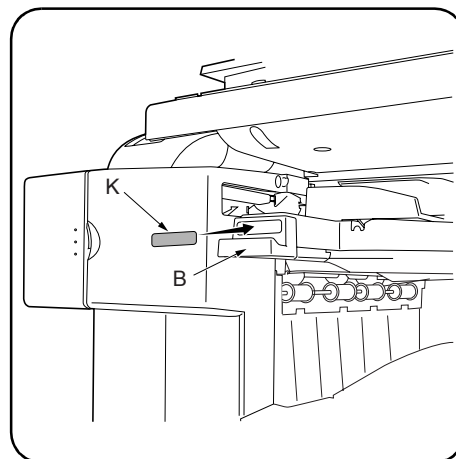
19. 手順3で取り外したステープルホルダーを元どおり取り付け、搬送左カバーおよび前カバーを閉める。  
20. 排出カバー前(E)および排出カバー後(F)をビスM3 × 05TP(L)各1本で取り付け。



**21.** Attach the copy tray (G).



**22.** Open the staple cover (C) and insert the staple cartridge (H) into the stapler.  
**23.** Close the staple cover (C).



**24.** After cleaning with alcohol, attach the Pull label (K) written in the adequate language onto the label on the intermediate tray (B) as required.

**21.** Fixer le plateau à copies (G).

**22.** Ouvrir le couvercle d'agrafes (C) et insérer la cartouche d'agrafes (H) dans l'agrafeuse.  
**23.** Refermer le couvercle d'agrafes (C).

**24.** Après avoir nettoyé avec de l'alcool, fixer l'étiquette Tirer (K) écrite dans la langue adéquate sur l'étiquette sur le plateau intermédiaire (B) comme nécessaire.

**21.** Instale la bandeja de copias (G).

**22.** Abra la cubierta de grapas (C) e inserte el cartucho de grapas (H) en el grapador.  
**23.** Cierre la cubierta de grapas (C).

**24.** Después de limpiar con alcohol, pegue la etiqueta de tiro (K) escrito en el idioma adecuado en la etiqueta en la bandeja intermedia (B) según sea necesario.

**21.** Die Kopienablage (G) anbringen.

**22.** Die Hefterabdeckung (C) öffnen, und die Heftklammerpatrone (H) in den Hefter einsetzen.  
**23.** Die Hefterabdeckung (C) schließen.

**24.** Je nach Bedarf den Abziehaufkleber (K) der entsprechenden Sprache nach der Reinigung mit Alkohol auf den Aufkleber an der Zwischenablage (B) anbringen.

**21.** Montate il vassoio delle copie (G).

**22.** Aprire il coperchio della graffatrice (C) e inserire la cartuccia della graffatrice (H).  
**23.** Chiudere il coperchio della graffatrice (C).

**24.** Dopo che avete pulito con alcol, fissate l'etichetta staccabile (K) scritta nella lingua appropriata sull'etichetta del vassoio intermedio (B) come richiesto.

**21.** 装上排纸托盘(G)。

**22.** 打开装书订盖板(C)后, 将订书钉盒(H)插入装订器里。  
**23.** 关上装书订盖板(C)。

**24.** 根据需要, 用酒精将中间托盘(B)的标签处擦净后, 贴上使用语言的PULL标签(K)。

**21.** 排出トレイ (G) を取り付ける。

**22.** ステープルカバー(C) を開き、ステープルカートリッジ (H) をステープルに挿入する。  
**23.** ステープルカバー(C) を開める。

**24.** 必要に応じて、中間トレイ (B) のラベルの上に、アルコール清掃後言語に合った PULL ラベル (K) を貼り付ける。

### Operation check

1. Insert the power plug of the MFP into an outlet and turn the main switch on.
2. Select the staple mode and make a stapled copy to check that stapling is performed properly.

---

### Vérification du fonctionnement

1. Insérer la fiche d'alimentation du MFP dans une prise murale et mettre l'interrupteur principal sous tension.
2. Sélectionner le mode d'agrafeuse et effectuer une copie agrafée pour vérifier le bon fonctionnement de l'agrafeuse.

---

### Verificación del funcionamiento

1. Enchufe el cable eléctrico del MFP en un tomacorriente y conecte el interruptor principal.
2. Seleccione el modo de grapas y haga una copia grapada para comprobar que el grapado se hace correctamente.

---

### Betriebsprüfung

1. Den Netzstecker des MFP in eine Netzsteckdose einstecken, und den Hauptschalter einschalten.
2. Den Heftmodus wählen und eine geheftete Kopie anfertigen, um zu prüfen, ob die Heftung korrekt durchgeführt wird.

---

### Verifica di funzionamento

1. Inserite il cavo di alimentazione dell'MFP nella presa di rete e quindi accendetela.
2. Selezionate il modo graffatrice e quindi eseguite una copia graffata, in modo da verificare che la graffatrice funzioni correttamente.

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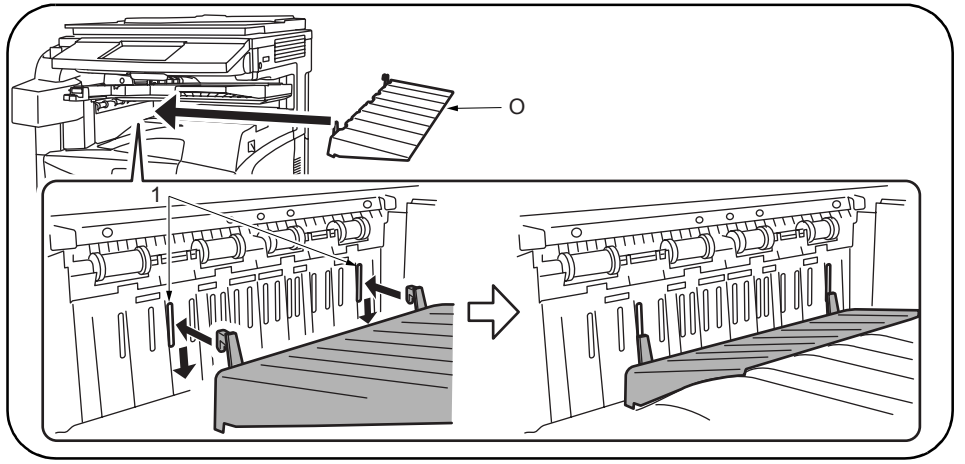
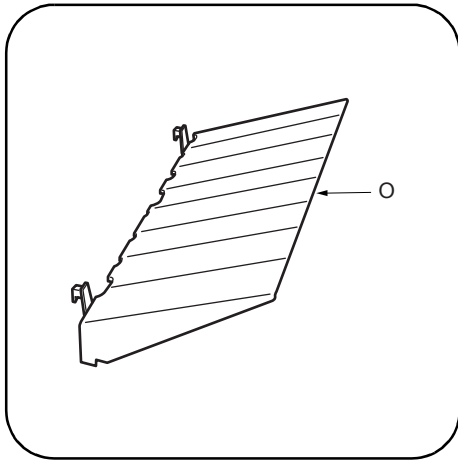
### 【 确认操作情况 】

1. 将MFP主机的电源插头插入插座后，接通主电源开关。
2. 选择装订模式后，进行装订复印，确认是否可以装订。

---

### 【動作確認】

1. MFP 本体の電源プラグをコンセントに差し込み、メインスイッチを ON にする。
2. ステープルモードを選択して、ステープルコピーを行い、ステープルされるか確認する。



#### English

### Adding procedure to the finisher installation

The following step is added after step 24 on page 10.

#### Supplied parts

O Sub tray ..... 1

Insert the two hooks of the sub tray (O) into the two slits (1) of the MFP eject section to attach the sub tray.

#### Français

### Ajout d'une procédure à l'installation du finisseur

L'étape suivante est ajoutée après l'étape 24 de la page 10.

#### Pièces fournies

O Plateau secondaire ..... 1

Insérer les deux crochets du plateau secondaire (O) dans les deux fentes (1) de la section d'éjection du MFP pour fixer le plateau secondaire.

#### Español

### Agregando un procedimiento a la instalación del finalizador

Se agrega el siguiente paso después del paso 24 en la página 10.

#### Partes suministradas

O Bandeja secundaria ..... 1

Inserte los dos ganchos en la bandeja secundaria (O) en las dos ranuras (1) en la sección de expulsión de MFP para instalar la bandeja secundaria.

#### Deutsch

### Hinzufügung eines Verfahrens zur Fixierer-Installation

Der folgende Schritt wird nach Schritt 24 auf Seite 10 hinzugefügt.

#### Gelieferte Teile

O Hilfsablage ..... 1

Die zwei Haken der Hilfsablage (O) in die zwei Schlitze (1) des MFP-Auswerfabchnitts einführen, um die Hilfsablage anzubringen.

#### Italiano

### Procedura aggiuntiva per l'installazione del finitore

Il seguente passo viene aggiunto dopo il passo 24 a pagina 10.

#### Parti fornite

O Sottovassoio ..... 1

Inserite i due ganci del sottovassoio (O) nelle due fessure (1) della sezione di espulsione dell'MFP per montare il sottovassoio.

#### 简体中文

### 安装装订器时的补充步骤

在第 10 页的步骤 24 后面补充以下步骤。

#### 附属部件

O 辅助托盘 ..... 1

将辅助托盘 (O) 上的挂钩 (2 处) 挂在 MFP 本体排纸部的 2 处切口 (1) 上。

#### 日本語

### フィニッシャ設置時の手順追加

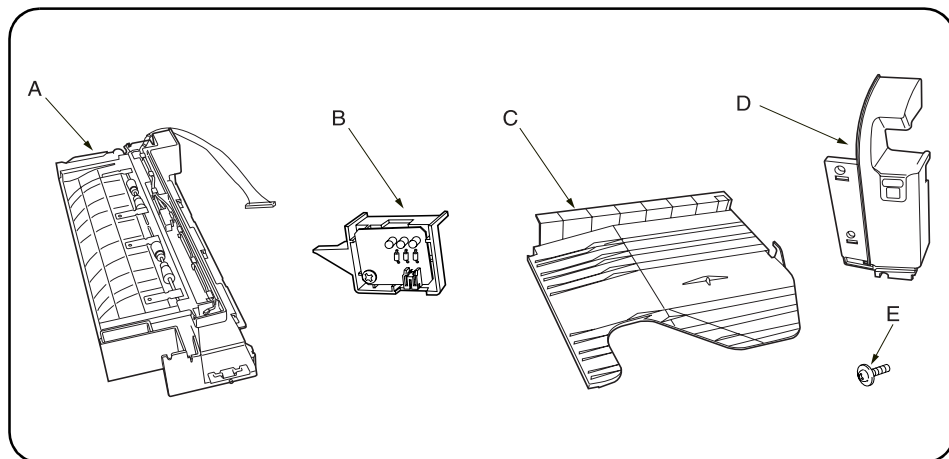
10 ページ、手順 24 の後に、次の手順を追加。

#### 付属品

O サブトレイ ..... 1

サブトレイ (O) のフック部 2 箇所を MFP 本体排出部のスリット (1) 2 箇所に引っ掛けて取り付ける。

# **INSTALLATION GUIDE FOR JOB SEPARATOR**



## English

E TP screw M3 x 05 ..... 1

### Supplied part

A	Job separator.....	1
B	LED PCB.....	1
C	Job separator copy tray.....	1
D	Left front cover JS.....	1

### Procedure

**Caution:** When installing a job separator, be sure to turn the MFP main switch off and disconnect the MFP power plug from the wall outlet.

## Français

E Vis TP M3 x 05 ..... 1

### Pièce fournie

A	Séparateur de travaux.....	1
B	LED PCB.....	1
C	Plateau de copies du séparateur de travaux.....	1
D	Couvercle avant gauche JS.....	1

### Procédure

**Précaution:** Lors de l'installation d'un séparateur de travaux, veiller à mettre l'interrupteur principal du MFP hors tension et à débrancher la fiche d'alimentation du MFP de la prise murale.

## Español

E Tornillo TP M3 x 05 ..... 1

### Parte provista

A	Separador de trabajos.....	1
B	PCB en LED.....	1
C	Bandeja de copias del separador de trabajos.....	1
D	Cubierta delantera izquierda JS.....	1

### Procedimiento

**Precaución:** Cuando se instala un separador de trabajos, asegúrese de desconectar el interruptor principal del MFP y desenchufar el cable eléctrico del tomacorriente de la pared.

## Deutsch

E TP-Schraube M3 x 05 ..... 1

### Gelieferte Teile

A	Jobtrenner.....	1
B	LED-Leiterplatte.....	1
C	Jobtrenner-Kopienablage.....	1
D	Linke Frontabdeckung JS.....	1

### Vorgang

**Vorsicht:** Schalten Sie vor der Installation des Jobtrenners unbedingt den Hauptschalter des MFP aus, und ziehen Sie den Netzstecker des MFP von der Netzsteckdose ab.

## Italiano

E Vite TP M3 x 05 ..... 1

### Parte fornita

A	Separatore.....	1
B	Scheda LED.....	1
C	Vassoio copie del separatore.....	1
D	Coperchio frontale sinistro del separatore.....	1

### Procedura

**Attenzione:** Al momento dell'installazione del separatore, assicuratevi innanzitutto di spegnere l'MFP e scollegare il cavo di alimentazione dalla presa di rete.

## 简体中文

E 螺丝M3 x 05TP ..... 1

### 附属部件

A	作业分离器.....	1
B	LED电路板.....	1
C	作业分离器排纸托盘.....	1
D	左前盖板JS.....	1

### [ 安装步骤 ]

安装作业分离器时，必须先切断MFP主机的主电源开关，并拔下MFP主机上的电源插头后，再进行安装作业。

## 日本語

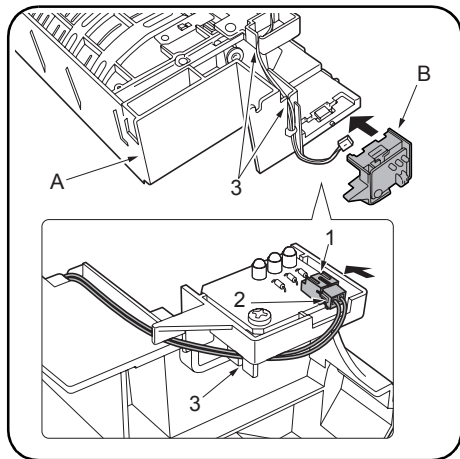
E ビス M3 x 05TP ..... 1

### 付属品

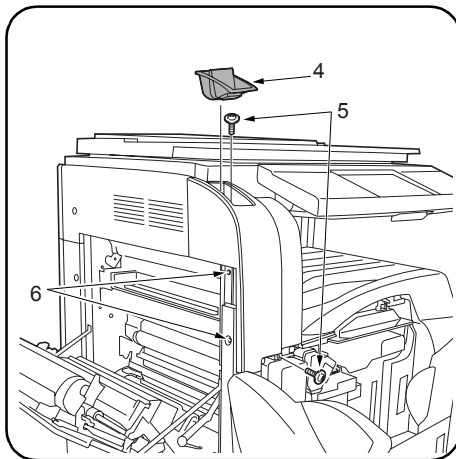
A	ジョブセパレータ.....	1
B	LED基板.....	1
C	ジョブセパレータ排出トレイ.....	1
D	左前カバーJS.....	1

### [ 取付手順 ]

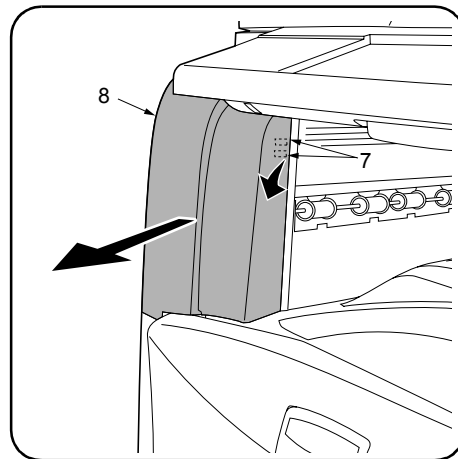
ジョブセパレータを取り付ける際は、必ずMFP本体のメインスイッチをOFFにし、電源プラグを外して作業を行うこと。



1. Insert the LED PCB (B) into the job separator (A).  
Connect the 2-pin connector (2) of the job separator (A) into the 2-pin connector (1) of the LED PCB (B) by arranging the wire into the three grooves (3) of the job separator (A).



2. Open the left transfer cover and the front cover.
3. Remove the staple holder (4), remove the two screws (5) from the upper side and the front side, and loosen the two screws (6) on the left side.



4. Open the hook (7) on the right side and remove the left front cover (8).

1. Insérer le LED PCB (B) dans le séparateur de travaux (A).  
Brancher le connecteur à deux broches (2) du séparateur de travaux (A) dans le connecteur à deux broches (1) du LED PCB (B) en plaçant le fil dans les trois rainures (3) du séparateur de travaux (A).

2. Ouvrir le couvercle de transfert gauche et le couvercle avant.
3. Retirer le support d'agrafes (4), retirer les deux vis (5) du côté supérieur et du côté avant, et desserrer les deux vis (6) du côté gauche.

4. Ouvrir le crochet (7) se trouvant sur le côté droit et retirer le couvercle avant gauche (8).

1. Inserte el PCB en LED (B) en el separador de trabajos (A).  
Conecte el conector de 2 patillas (2) del separador de trabajos (A) en el conector de 2 patillas (1) del PCB en LED (B) colocando el cable en las tres ranuras (3) del separador de trabajos (A).

2. Abra la cubierta de transferencia izquierda y la cubierta frontal.
3. Desmonte el soporte de grapas (4), saque los dos tornillos (5) del lado superior y el lado delantero y afloje los dos tornillos (6) en el lado izquierdo.

4. Abra el gancho (7) en el lado derecho y desmonte la cubierta delantera izquierda (8).

1. Die LED-Leiterplatte (B) in den Jobtrenner (A) einführen.  
Den 2-poligen Steckverbinder (2) des Jobtrenners (A) mit dem 2-poligen Steckverbinder (1) der LED-Leiterplatte (B) verbinden, indem das Kabel in den drei Nuten (3) des Jobtrenners (A) angeordnet wird.

2. Die linke Transferabdeckung und die Frontabdeckung öffnen.
3. Den Heftklammerhalter (4) entfernen, die zwei Schrauben (5) an der Ober- und Vorderseite herausdrehen, und die zwei Schrauben (6) auf der linken Seite lösen.

4. Den Haken (7) auf der rechten Seite öffnen, und die linke Frontabdeckung (8) abnehmen.

1. Inserite la scheda LED (B) nel separatore (A).  
Collegate il connettore a 2 pin (2) del separatore (A) nel connettore a 2 pin (1) della scheda LED (B) disponendo il cavo all'interno delle tre scanalature (3) del separatore (A).

2. Aprite il coperchio di trasferimento sinistro e quindi il coperchio frontale.
3. Rimuovete il vassoio graffette (4), rimuovete le due viti (5) dal lato superiore e dal lato frontale e allentate le due viti (6) sul lato sinistro.

4. Aprite il gancio (7) che si trova sul lato destro e rimuovete il coperchio frontale sinistro (8).

1. 在作业分离器 (A) 上插入LED印刷电路板 (B)。将作业分离器 (A) 的2脚插头 (2) 连在作业分离器的3处槽 (3) 电线上, 然后连接在LED印刷电路板 (B) 的2脚插头 (1) 上。

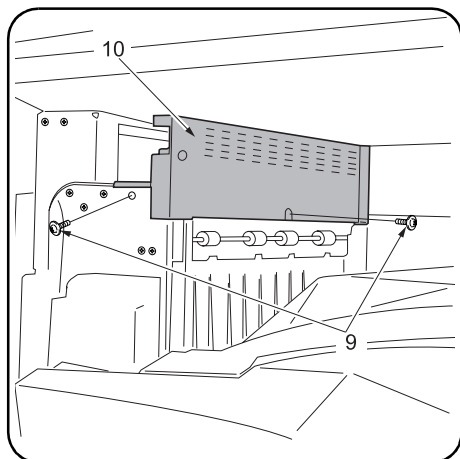
2. 打开输送左盖板和前盖板。
3. 拆下装书钉盒 (4), 卸下上侧和前侧的2个螺丝 (5), 接着松弛2个左侧螺丝 (6)。

4. 打开右侧支架部 (7), 取下左前盖板 (8)。

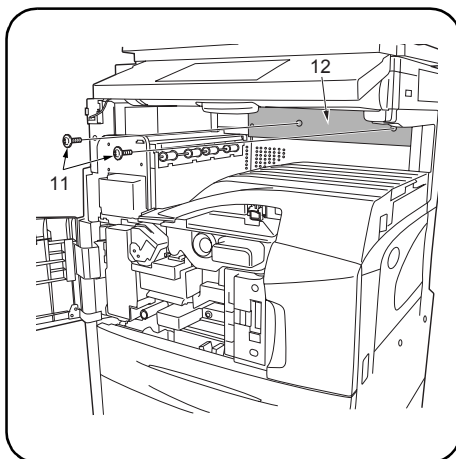
1. ジョブセパレータ (A) にLED基板 (B) を挿入する。  
ジョブセパレータ (A) の2Pコネクタ (2) を、ジョブセパレータの溝 (3) 3ヶ所に電線を配線して、LED基板 (B) の2Pコネクタ (1) に接続する。

2. 搬送左カバーおよび前カバーを開ける。
3. ステーブルホルダー (4) を取り外し、上側と前側のビス (5) 2本を外して、左側のビス (6) 2本をゆるめる。

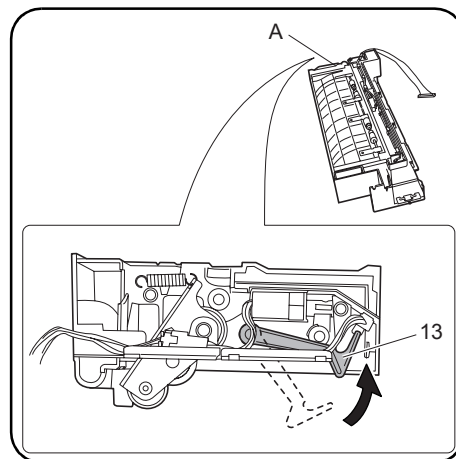
4. 右側の引っ掛け部 (7) を開いて左前カバー (8) を取り外す。



5. Remove the two screws (9) and remove the ejection cover (10) with the mounting plate.



6. Remove the two screws (11) and then remove the inner ejection cover (12).



7. If the branch pressure lever (13) on the rear side of the job separator (A) has lowered, raise it.

5. Enlever les deux vis (9) et enlever le couvercle d'éjection (10) avec la plaque de montage.

6. Enlever les deux vis (11), puis enlever le couvercle d'éjection interne (12).

7. Si le levier de pression fourchu (13) situé sur le côté arrière du séparateur de travaux (A) est abaissé, le relever.

5. Saque los dos tornillos (9) y desmante la cubierta de expulsión (10) con la placa de montaje.

6. Saque los dos tornillos (11) y desmante la cubierta de expulsión interior (12).

7. Si bajó la palanca de presión de ramal (13) en el lado trasero del separador de trabajos (A) levántela.

5. Die zwei Schrauben (9) entfernen, und dann die Auswurfabdeckung (10) mit der Montageplatte abnehmen.

6. Die zwei Schrauben (11) entfernen, und dann die innere Auswurfabdeckung (12) abnehmen.

7. Falls der Zweigdruckhebel (13) auf der Rückseite des Jobtrenners (A) abgesenkt ist, muss er angehoben werden.

5. Rimuovete ora le due viti (9) e quindi il coperchio di espulsione (10) con la piastra di montaggio.

6. Rimuovete le due viti (11) e quindi il coperchio interno di espulsione (12).

7. Se la leva a pressione del braccio (13) situata sul lato posteriore del separatore (A) è abbassata, sollevatela.

5. 卸下2个螺丝 (9), 然后将排纸盖板 (10) 的整个安装板拆下。

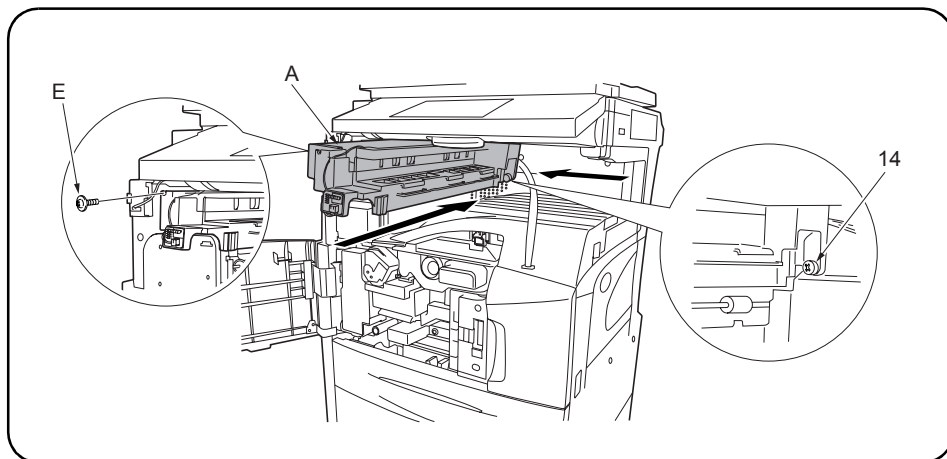
6. 卸下2个螺丝 (11), 然后拆下排纸内盖板 (12)。

7. 如果作业分离器 (A) 后侧的分歧按压把柄 (13) 朝下方状态时, 把它向上提起。

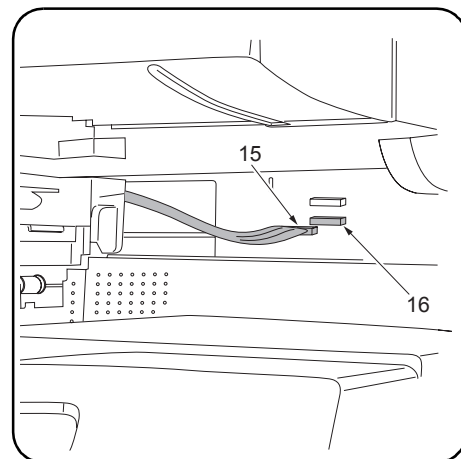
5. ビス (9) 2 本を外し、排出カバー (10) を取付板ごと取り外す。

6. ビス (11) 2 本を外し、排出内カバー (12) を取り外す。

7. ジョブセパレータ (A) 後側の分歧押圧レバー (13) が下方方向に下がっている場合は上げる。



**8.** Insert the job separator (A) into the MFP from the front side and slide it to the left. Secure the rear side using a pin (14) and the front side using a TP screw M3 × 05 (E).



**9.** Connect the connector (15) of the job separator to the lower connector (16) of the MFP.

**8.** Insérer le séparateur de travaux (A) dans le MFP depuis le côté avant et le faire glisser vers la gauche. Fixer l'arrière à l'aide d'une goupille (14) et l'avant à l'aide d'une vis TP M3 × 05 (E).

**9.** Connecter le connecteur (15) du séparateur de travaux au connecteur inférieur (16) du MFP.

**8.** Inserte el separador de trabajos (A) en el MFP del lado delantero y deslízalo hacia la izquierda. Asegure el lado trasero utilizando un pasador (14) y el lado delantero utilizando un tornillo TP M3 × 05 (E).

**9.** Conecte el conector (15) del separador de trabajos en el conector inferior (16) del MFP.

**8.** Den Jobtrenner (A) von der Vorderseite in den MFP einführen und nach links schieben. Die Rückseite mit einem Stift (14), und die Vorderseite mit einer TP-Schraube M3 × 05 (E) sichern.

**9.** Den Steckverbinder (15) des Jobtrenners an den unteren Steckverbinder (16) des MFP anschließen.

**8.** Inserite il separatore (A) nell'MFP dal lato frontale e fatelo scorrere a sinistra. Assicurate il lato posteriore usando un pernetto (14) e il lato frontale usando una vite TP M3 × 05 (E).

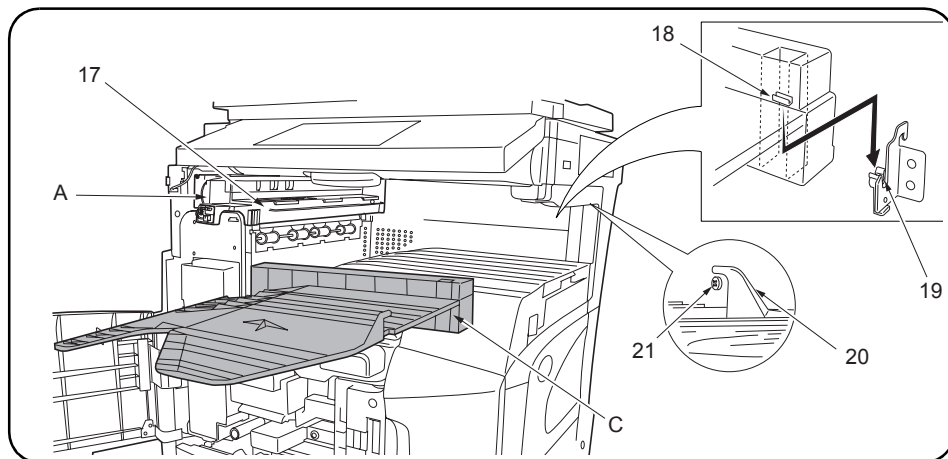
**9.** Collegate il connettore (15) del separatore al connettore inferiore (16) dell'MFP.

**8.** 从MFP主机的前侧插入作业分离器 (A) 后，向左侧滑动。用1个卡销 (14) 固定后侧，然后再用1个螺丝M3 × 05TP (E) 固定前侧。

**9.** 将作业分离器的连接插头 (15) 连接在本体的连接插座(下侧) (16) 上。

**8.** ジョブセパレータ (A) を MFP 本体の機械前側より挿入し、左側にスライドする。後側をピン (14) 1 本で固定してから前側をビス M3 × 05TP (E) 1 本で固定する。

**9.** ジョブセパレータのコネクタ (15) を本体のコネクタ(下側) (16) に接続する。



- 10. Attach the job separator tray (C) to the rail (17) of the job separator (A) by sliding it from the front side.**  
 Insert the fitting section (18) on the right side of the job separator tray (C) into the recessed portion (19) of the MFP.  
 Put the hook (20) on the right side onto the pin (21) located inside the MFP.

- 10. Fixer le plateau du séparateur de travaux (C) au rail (17) du séparateur de travaux (A) en le faisant glisser depuis l'avant.**  
 Insérer la section de la garniture (18) en le côté droit du séparateur de travaux (C) dans la partie en retrait (19) du MFP.  
 Mettre le crochet (20) sur le côté droit sur la goupille (21) située dans le MFP.

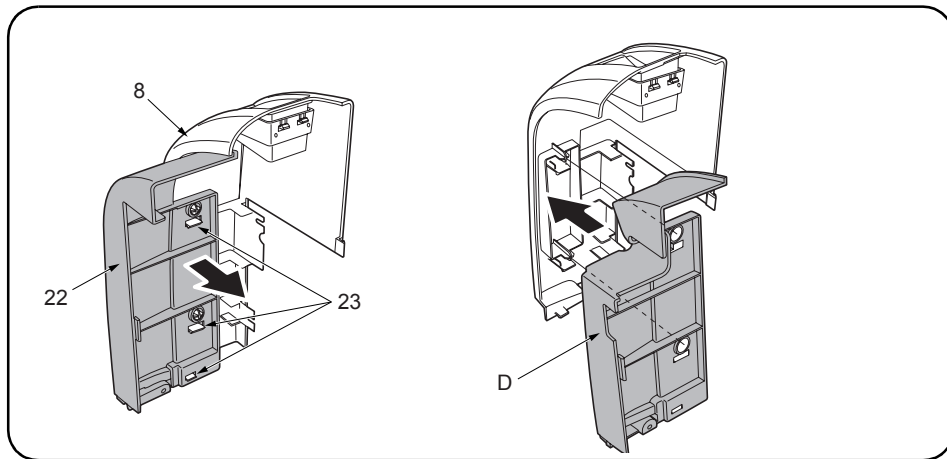
- 10. Instale la bandeja del separador de trabajos (C) en el carril (17) del separador de trabajos (A) deslizando por el lado delantero.**  
 Inserte la sección de fijación (18) en el lado derecho de la bandeja del separador de trabajos (C) en la parte entrada (19) del MFP.  
 Ponga el gancho (20) en el lado derecho del pasador (21) ubicado dentro del MFP.

- 10. Die Jobtrennerablage (C) von der Vorderseite auf die Schiene (17) des Jobtrenners (A) schieben.**  
 Die Passkante (18) auf der rechten Seite der Jobtrennerablage (C) in die Aussparung (19) des MFP einführen.  
 Den Haken (20) auf der rechten Seite auf den Stift (21) im Inneren des MFP setzen.

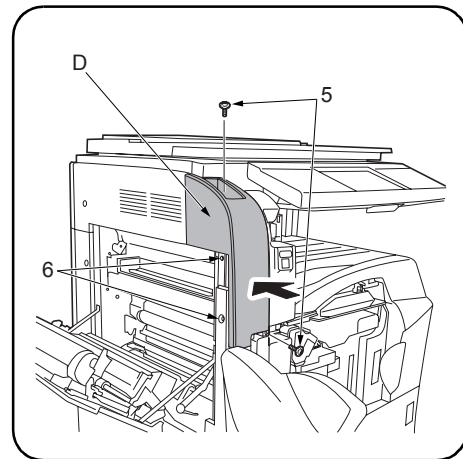
- 10. Montate il vassoio del separatore (C) sulla rotaia (17) del separatore stesso, facendolo scorrere dal lato frontale.**  
 Inserite la sezione di montaggio (18) situata sul lato destro del vassoio del separatore (C) nella posizione rientrante (19) dell'MFP.  
 Mettete il gancio (20) situato sul lato destro sul perno (21) che si trova all'interno dell'MFP.

- 10. 将作业分离器托盘 (C) 从前侧滑动装入作业分离器 (A) 的导板 (17) 上。**  
 将作业分离器排纸托盘 (C) 的右侧安装部 (18) 插入本体的凹部 (19)。  
 将右侧的挂钩 (20) 放在MFP主机内侧的卡销 (21) 上。

- 10. ジョブセパレータ (A) のレール (17) にジョブセパレータ排出トレイ (C) を前側よりスライドさせて取り付け。**  
 ジョブセパレータ排出トレイ (C) 右側の取付部 (18) を本体の凹部 (19) に挿入する。  
 右側面のフック (20) を MFP 本体内側のピン (21) の上に乗せる。



**11.** Release the three tabs (23) of the left front cover (8) that has been removed in step 4 to remove the white right side section (22), and fit the left front cover JS (D).



**12.** Fit the left front cover JS (D) using the two screws (6) on the left side to secure and using the two screws (5) that have been removed in step 3.

**11.** Libérer les trois languettes (23) du couvercle avant gauche (8) retiré auparavant lors de l'étape 4 pour retirer la section blanche du côté droit (22), et placer le couvercle avant gauche JS (D).

**12.** Placer le couvercle avant gauche JS (D) à l'aide des deux vis (6) sur le côté gauche pour le fixer et en utilisant les deux vis (5) retirées auparavant lors de l'étape 3.

**11.** Suelte las tres lengüetas (23) de la cubierta delantera izquierda (8) que fue desmontada en el paso 4 para desmontar la sección del lado derecho blanca (22), y encaje la cubierta delantera izquierda JS (D).

**12.** Encaje la cubierta delantera izquierda JS (D) utilizando los dos tornillos (6) en el lado izquierdo y utilizando los dos tornillos (5) que fueron desmontados en el paso 3.

**11.** Die drei Laschen (23) der in Schritt 4 entfernten linken Frontabdeckung (8) lösen, um den weißen rechten Seitenteil (22) abzunehmen, und die linke Frontabdeckung JS (D) anbringen.

**12.** Die linke Frontabdeckung JS (D) mit den zwei Schrauben (6) auf der linken Seite und mit den in Schritt 3 entfernten zwei Schrauben (5) befestigen.

**11.** Rilasciate le tre linguette (23) situate sul coperchio frontale sinistro (8), che avete rimosso nel passo 4, per rimuovere la sezione laterale bianca destra (22) e montate il coperchio frontale sinistro JS (D).

**12.** Montate il coperchio frontale sinistro JS (D) usando le due viti (6) sul lato sinistro per fissarlo e usando le due viti (5) che sono state rimosse nel passo 3.

**11.** 解除在步驟4拆下的左前蓋板 (8) 的3處卡爪 (23), 取下右側部(白色) (22) 后, 裝上左前蓋板JS (D)。

**12.** 用2個左側螺絲 (6) 固定左前蓋板JS (D), 用步驟3拆下的2個螺絲 (5) 進行固定。

**11.** 手順4で取り外した左前カバー (8) のツメ (23) 3ヶ所を解除して、右側部 (白) (22) を外し、左前カバーJS (D) を取り付け。

**12.** 左前カバーJS (D) を左側のビス (6) 2本で固定し、手順3で外したビス (5) 2本で取り付け。

13. Refit the staple holder that has been removed in step 3 to its original position and close the transfer left cover and the front cover.

#### Operation check

1. Insert the power plug of the MFP into an outlet and turn the main switch on.
2. Press "Org./Paper/Finishing" and "Output Tray" on the touch panel in this order to select "Job separator Tray".

3. Make a test copy to check that a copy is ejected to the job separator tray (C).

13. Remettre le support d'agrafes retiré auparavant lors de l'étape 3 à sa position d'origine, et refermer le couvercle de transfert gauche et le couvercle avant.

#### Vérification du fonctionnement

1. Insérer la fiche d'alimentation du MFP dans une prise murale et mettre l'interrupteur principal sous tension.
2. Presser "Org./Papier/Finition" et "Bac de sortie" sur l'écran tactile dans cet ordre pour sélectionner "Plateau du sépar. trav."

3. Effectuer une copie de test pour vérifier que la copie est éjectée dans le plateau du séparateur de travaux (C).

13. Vuelva a colocar el soporte de grapas que fue desmontado en el paso 3 a su posición original y cierre la cubierta izquierda de transferencia y la cubierta delantera.

#### Verificación del funcionamiento

1. Enchufe el cable eléctrico del MFP en un tomacorriente y conecte el interruptor principal.
2. Presione "Org./papel/Finalizando" y "Bandeja de salida" en el panel de toque para seleccionar "Band. de separad. trab."

3. Haga una copia de prueba para verificar que la copia sale a la bandeja del separador de trabajos (C).

13. Den in Schritt 3 entfernten Heftklammerhalter wieder an seiner ursprünglichen Stelle anbringen, und dann die linke Transferabdeckung und die Frontabdeckung schließen.

#### Betriebsprüfung

1. Den Netzstecker des MFP in eine Netzsteckdose einstecken, und den Hauptschalter einschalten.
2. Die Tasten "Org./Papier/Endbearbeitung" und "Druckablage" auf dem Sensorbildschirm in dieser Reihenfolge drücken, um "Job Separator-Fach" zu wählen.

3. Eine Probekopie anfertigen, um zu prüfen, ob die Kopie in die Jobtrennerablage (C) ausgeworfen wird.

13. Montate nuovamente il vassoio graffette che è stato rimosso nel passo 3 nella sua posizione originale e chiudete il coperchio di trasferimento sinistro e quindi il coperchio frontale.

#### Verifica di funzionamento

1. Inserite il cavo di alimentazione dell'MFP nella presa di rete e quindi accendetela.
2. Premete "Org./Carta/Finitura" e "Vassoia di uscita" sul pannello a sfioramento in questo ordine per selezionare "Vass. separat. Lavori".

3. Effettuate una copia di prova per verificare che essa venga espulsa sul vassoio del separatore (C).

13. 按原样装好在步骤3卸下的装书钉盒，关闭输送左盖板和前盖板。

#### [ 确认操作情况 ]

1. 将MFP主机的电源插头插入插座后，接通主电源开关。
2. 按下触控板，顺序表示出“原稿/纸张/装订”、“出纸口”，选定“作业分离器”。

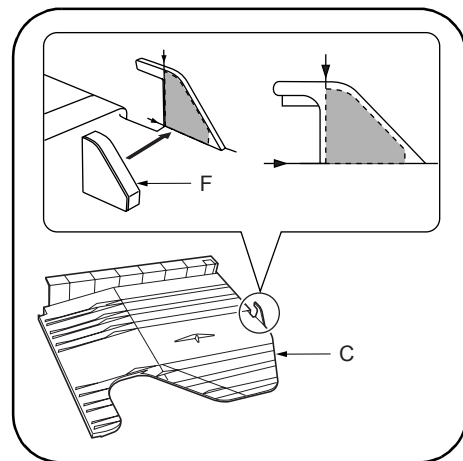
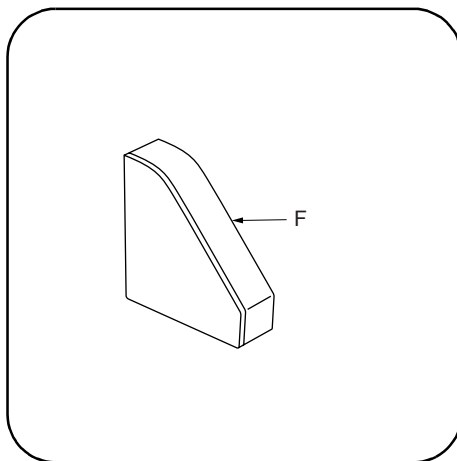
3. 进行试印，确认纸张是否排在作业分离器托盘 (C) 上。

13. 手順3で取り外したステーブルホルダーを元どおり取り付け、搬送左カバーおよび前カバーを閉める。

#### [ 動作確認 ]

1. MFP 本体の電源プラグをコンセントに差し込み、メインスイッチを ON にする。
2. タッチパネルで「原稿 / 用紙 / 仕上げ」、「排紙先」を順に押し「ジョブセパレータ」を選択する。

3. テストコピーを行い、用紙がジョブセパレータ排出トレイ (C) に排出されたことを確認する。



#### English

### Adding procedure to the job separator installation (metric specifications only)

The following step is added after step 9 on page 4.

#### Supplied parts

F Eject stopper A3 ..... 1

After using alcohol to clean the portion of the job separator tray (C) shown in the figure, adhere the eject stopper A3 (F) along the reference lines.

#### Français

### Ajout d'une procédure à l'installation du séparateur de travaux (pour spécifications métriques seulement)

L'étape suivante est ajoutée après l'étape 9 de la page 4.

#### Pièces fournies

F Butée d'éjection A3 ..... 1

Après avoir utilisé de l'alcool pour nettoyer le plateau du séparateur de travaux (C) montré dans la figure, faire adhérer la butée d'éjection A3 (F) le long des lignes de référence.

#### Español

### Agregando un procedimiento a la instalación del separador de trabajos (sólo para las especificaciones métricas)

Se agrega el siguiente paso después del paso 9 en la página 4.

#### Partes suministradas

F Tope de expulsión de A3 ..... 1

Después de utilizar alcohol para limpiar la parte de la bandeja del separador de trabajos (C) que aparece en la figura, pegue el tope de expulsión de A3 (F) por las líneas de referencia.

#### Deutsch

### Hinzufügung eines Verfahrens zur Jobtrenner-Installation (nur metrische Spezifikationen)

Der folgende Schritt wird nach Schritt 9 auf Seite 4 hinzugefügt.

#### Gelieferte Teile

F Auswerfanschlag A3 ..... 1

Den in der Abbildung gezeigten Abschnitt der Jobtrennerablage (C) mit Alkohol reinigen, dann den Auswerfanschlag A3 (F) innerhalb der Bezugslinien ankleben.

#### Italiano

### Procedura addizionale per l'installazione del separatore (solo per le specifiche metriche)

Il seguente passo viene aggiunto dopo il passo 9 a pagina 4.

#### Parti fornite

F Fermo di espulsione A3 ..... 1

Dopo avere usato l'alcol per pulire la parte del vassoio del separatore (C) illustrata in figura, fare aderire il fermo di espulsione A3 (F) lungo le linee di riferimento.

#### 简体中文

### 安装作业分离器时的补充步骤 (仅限英寸规格产品)

在第 4 页的步骤 9 后面补充以下步骤。

#### 附属部件

F 排纸挡块 A3 ..... 1

用酒精擦净作业分离器排纸托盘 (C) (图示位置) 后, 沿着基准线贴上排纸挡块 A3 (F)。

#### 日本語

### ジョブセパレータ設置時の手順追加 (センチ仕様のみ)

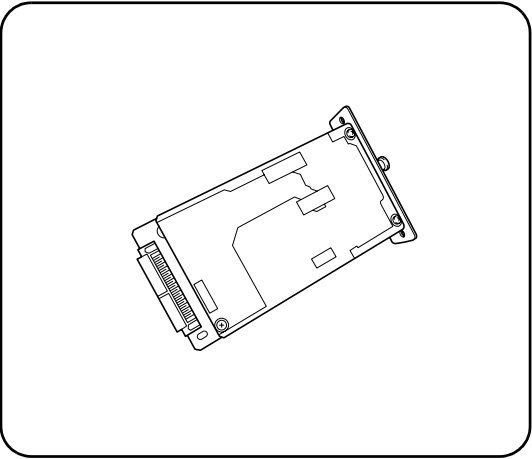
4 ページ、手順 9 の後に、次の手順を追加。

#### 付属品

F 排出ストッパ A3 ..... 1

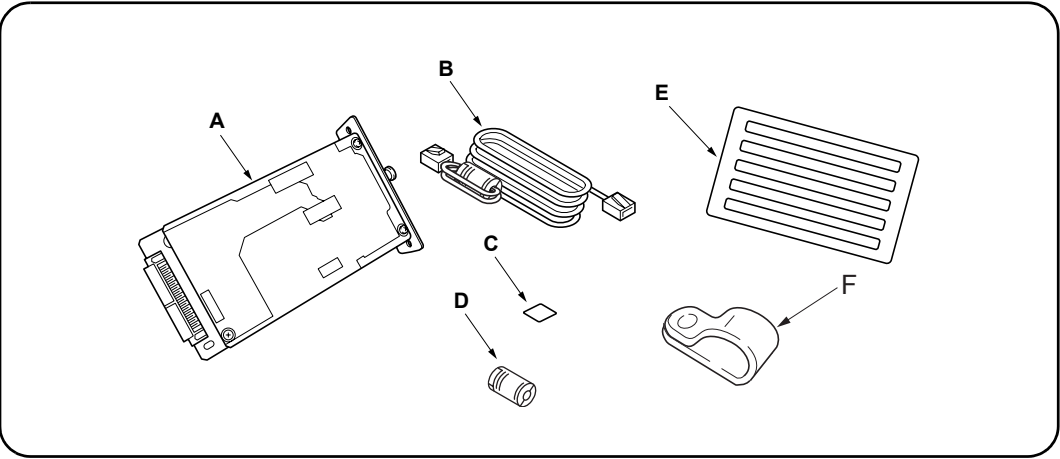
ジョブセパレータ排出トレイ (C) の図の位置をアルコール清掃後、排出ストッパ A3 (F) を基準に沿って貼り付ける。

# **INSTALLATION GUIDE FOR FAX System (M)**



English

# INSTALLATION GUIDE for FAX System (M)

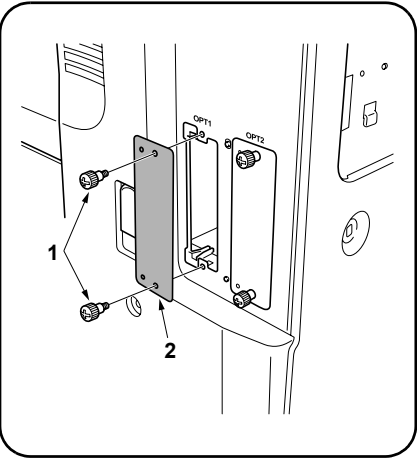


**Supplied parts**

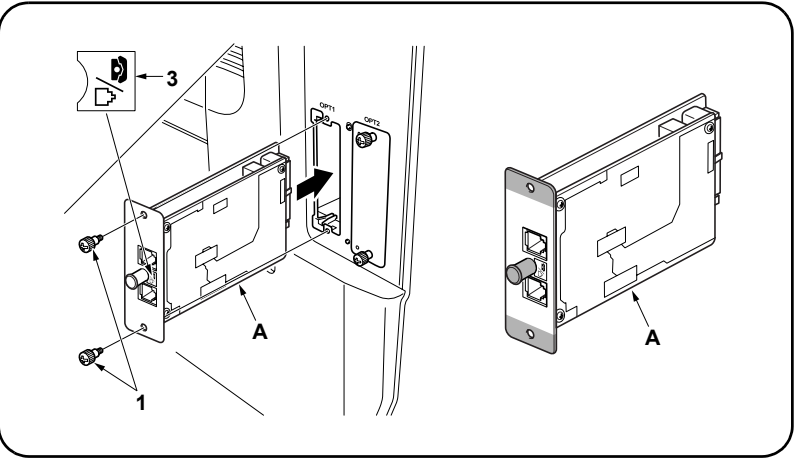
A FAX circuit board .....	1
B Modular connector cable (120 V model only).....	1
C Terminal seal .....	1
D Ferrite core .....	1
120 V model .....	1
230 V model .....	2
E Alphabet label.....	1

**Installation Procedure**  
Be sure to turn the MFP switch OFF and unplug the MFP from the power supply before installing the fax system.

F Clamp (not for use) ..... 1



**Remove the cover.**  
1. Remove two screws (1) and then remove OPT 1 cover (2).



**Install the FAX circuit board.**  
2. Insert the FAX circuit board (A) along the groove in OPT1 and secure the board with two screws (1) that have been removed in step 1.  
**Direct the label (3) on to the FAX circuit board toward right side and insert the board along the groove.**  
**Do not touch the FAX circuit board terminal. Hold the top and bottom of the FAX circuit board, or the projection of the board to insert the FAX circuit board.**  
Do not insert the FAX circuit board into OPT2.

Français

# GUIDE D'INSTALLATION du système FAX (M)

**Pièces fournies**

A Carte à circuits FAX.....	1
B Câble du connecteur modulaire (modèle 120 V).....	1
C Joint de borne .....	1
D Noyau de ferrite .....	1
Modèle 120 V .....	1
Modèle 230 V .....	2
E Etiquette de l'alphabet.....	1

**Méthode d'installation**  
Veiller à mettre l'interrupteur principal du MFP hors tension et à débrancher le MFP de la prise secteur avant d'installer le système fax.

F Collier (non utilisé) ..... 1

**Retirer le couvercle.**  
1. Retirer les deux vis (1), puis le couvercle OPT 1 (2).

**Installer la carte à circuits FAX.**  
2. Insérer la carte à circuits FAX (A) le long de la rainure dans l'OPT1 et la fixer à l'aide des deux vis (1) retirées à l'étape 1.  
**Diriger l'étiquette (3) située sur la carte à circuits FAX vers la droite et insérer la carte le long de la rainure.**  
**Ne pas toucher la borne de la carte à circuits FAX. Tenir les parties inférieure et supérieure de la carte à circuits FAX ou la saillie de la carte pour insérer la carte à circuits FAX.**  
Ne pas insérer la carte à circuits FAX dans l'OPT2.

Español

# GUÍA PARA LA INSTALACIÓN del sistema de FAX (M)

**Piezas suministradas**

A Tarjeta de circuitos de fax.....	1
B Cable conector modular (sólo para modelo de 120 V).....	1
C Sello del terminal .....	1
D Núcleo de ferrita .....	1
Modelo para 120 V .....	1
Modelo para 230 V .....	2
E Etiqueta de alfabeto .....	1

**Procedimiento de instalación**  
Asegúrese de apagar el MFP colocando el interruptor principal a OFF y desenchufe el MFP del suministro de red eléctrica antes de instalar el sistema de fax.

F Abrazadera (no utilizar)..... 1

**Desmonte la cubierta.**  
1. Quite dos tornillos (1) y desmonte la cubierta OPT 1 (2).

**Instale la tarjeta de circuitos de fax.**  
2. Inserte la tarjeta de circuitos de fax (A) a lo largo de la ranura de OPT1 y asegúrela con los dos tornillos (1) que ha quitado en el paso 1.  
**Orienta la etiqueta (3) de la tarjeta de circuitos de fax hacia la derecha e inserte la tarjeta a lo largo de la ranura.**  
**No toque el terminal de la tarjeta de circuitos de fax. Sujete las partes superior e inferior de la tarjeta de circuitos de fax o la saliente de la tarjeta para insertar la tarjeta de circuitos de fax.**  
No inserte la tarjeta de circuitos de fax en OPT2.

Deutsch

# INSTALLATIONSANLEITUNG für das Faxsystem (M)

**Gelieferte Teile**

A FAX-Leiterplatte.....	1
B Modulkabel (nur 120-V-Modell) .....	1
C Verschlusskappe .....	1
D Ferritkern .....	1
120-V-Modell .....	1
230-V-Modell .....	2
E Alphabetaufkleber .....	1

**Installationsablauf**  
Schalten Sie den Netzschalter des MFP aus und trennen Sie den MFP vom Netz, bevor Sie das Faxsystem installieren.

F Schelle (wird nicht benutzt) ..... 1

**Entfernen der Abdeckung.**  
1. Die beiden Schrauben (1) herausdrehen und Abdeckung OPT1 (2) abnehmen.

**Einbauen der FAX-Leiterplatte.**  
2. FAX-Leiterplatte (A) in die Nut des Einbauschachts OPT1 einsetzen und Leiterplatte mit den in Schritt 1 ausgebauten Schrauben (1) befestigen.  
**Die FAX-Leiterplatte so in die Nut einsetzen, dass der Aufkleber (3) nach rechts zeigt.**  
**Die Kontakte der FAX-Leiterplatte nicht berühren. Die FAX-Leiterplatte beim Einsetzen oben und unten oder an dem Vorsprung festhalten.**  
FAX-Leiterplatte nicht in Schacht OPT2 einsetzen.

Italiano

# GUIDA ALL'INSTALLAZIONE del sistema fax (M)

**Parti fornite**

A Scheda a circuiti FAX .....	1
B Cavo connettore modulare (solo per il modello da 120 V)....	1
C Guarnizione terminale .....	1
D Nucleo di ferrite .....	1
modello da 120 V .....	1
modello da 230 V .....	2
E Etichetta alfabetica .....	1

**Istruzioni per il montaggio**  
Assicurarsi di aver spento l'interruttore dell'MFP e di aver sfilato la spina dell'MFP dalla presa prima di installare il sistema fax.

F Fascetta (da non utilizzare)..... 1

**Rimuovere il coperchio.**  
1. Rimuovere le due viti (1), quindi rimuovere il coperchio OPT 1 (2).

**Montaggio della scheda a circuiti FAX.**  
2. Inserire la scheda a circuiti FAX (A) lungo l'incavo nell'OPT1 e fissare la scheda con le due viti (1) rimosse nell'operazione 1.  
**Rivolgere l'etichetta (3) sulla scheda a circuiti FAX verso il lato destro e inserire la scheda lungo l'incavo.**  
**Non toccare il terminale della scheda a circuiti FAX. Per inserire il circuito FAX, tenere l'estremità superiore e la base della scheda a circuiti FAX, o la sporgenza della scheda a circuiti FAX.**  
Non inserire la scheda a circuiti FAX nell'OPT2.

简体中文

# FAX System (M) 安装手册

**附属部件**

A 传真电路板 .....	1
B 电话线 (仅适用于 120V 型号).....	1
C 端子密封 .....	1
D 铁芯 .....	1
120V 型号 .....	1
230V 型号 .....	2

**安装步骤**  
请务必关闭 MFP 的开关并拔下电源插头再安装传真组件。

E 英文字母标签 ..... 1  
F 卡夹 (不使用) ..... 1

**拆下盖板。**  
1. 拆下 2 颗螺钉 (1), 然后拆下 OPT 1 盖板 (2)。

**安装传真电路板。**  
2. 沿着 OPT1 的沟槽插入传真电路板 (A) 并用步骤 1 中拆下的两颗螺钉 (1) 固定电路板。  
**将标签 (3) 放在传真电路板上, 朝向右侧, 然后沿着沟槽插入电路板。**  
**不要触碰传真电路板端子。按住传真电路板的顶部和底部, 或者按住电路板的突出部将传真电路板插入。**  
不要将传真电路板插入 OPT2。

日本語

# FAX System (M) 設置手順書

**付属部品**

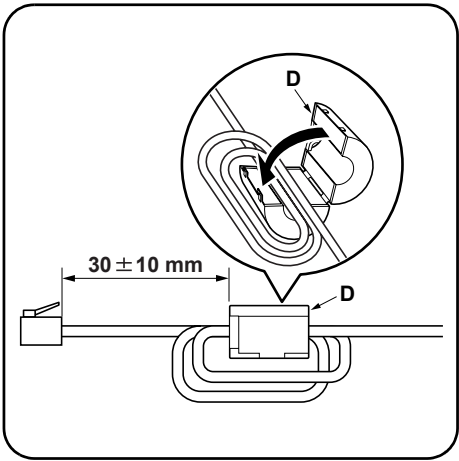
A FAX 基板 .....	1
B モジュラーコード (120V 仕様のみ).....	1
C 端子シール .....	1
D フェライトコア .....	1
120V 仕様 .....	1
230V 仕様 .....	2
E アルファベットラベル .....	1

**設置手順**  
ファクスシステムを設置するときは、必ず MFP 本体のメインスイッチを OFF にし、電源プラグを抜いてから作業すること。

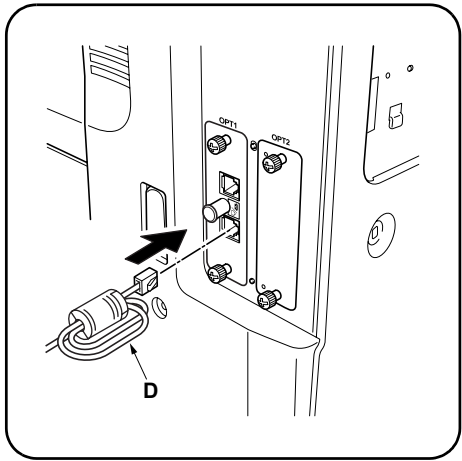
F クランプ (使用しません) ..... 1

**カバーの取り外し**  
1. ビス (1)2 本を外し、OPT1 のカバー (2) を取り外す。

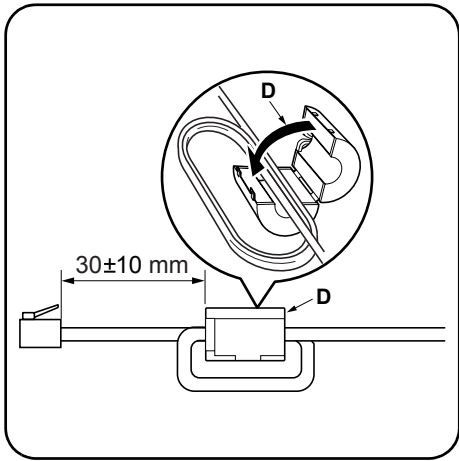
**FAX 基板の取り付け**  
2. OPT1 の溝に沿って FAX 基板 (A) を挿入し、手順 1 で外したビス (1)2 本で固定する。  
FAX 基板は、貼り付けられているラベル (3) を右側に向け、挿入すること。  
**FAX 基板の端子に触れないこと。FAX 基板の挿入時は基板の上下が突起を持つこと。OPT2 には FAX 基板を挿入しないこと。**



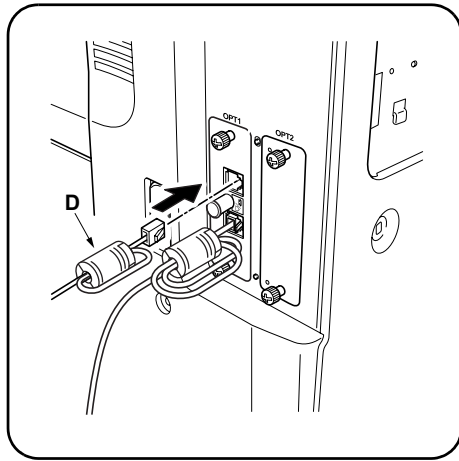
**Install the ferrite core (only 230 V model).**  
3. Install the ferrite core (D) onto the modular connector cable. **Be sure to loop the cord three times through the ferrite core.** Make a gap of 30 mm ± 10 mm between the ferrite core and the terminal.



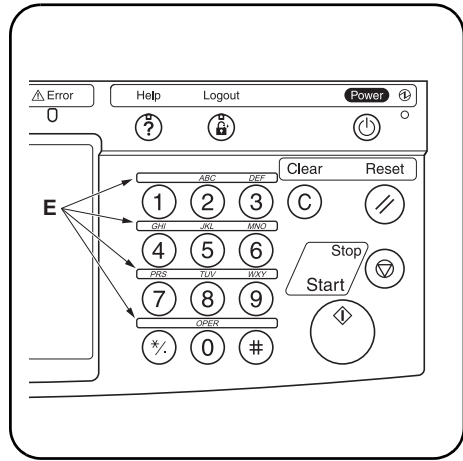
**Connect the MFP to the telephone line.**  
4. Plug the telephone line modular connector cable with the ferrite core (D) into the line terminal, and then connect the line terminal to the telephone line. For the 120 V model, use the supplied modular connector cable (B).



**Install the ferrite core (telephone line of the separate phone).**  
5. When connecting a separate phone to the MFP, attach the ferrite core (D) to the telephone line of the separate phone. **Be sure to loop the cord twice through the ferrite core.**



**Connect the MFP to the separate phone.**  
6. Plug the separate phone line with the ferrite core (D) into the line terminal, and then connect the line terminal to the separate phone line. If you don't connect the MFP to the separate phone, wipe the surface of the telephone terminal with alcohol and adhere the terminal seal (C).



**Attach the alphabet labels.**  
7. Wipe the area above the numeric keys at the right side of the operation panel and adhere the alphabet labels (E) here.  
8. In Asia and Oceania, use PQRS TUV WXYZ label, and do not use PRS TUV WXY and OPER labels.

**[Operation check]**  
1. Plug the MFP into a power outlet, and turn on the main power.  
2. Perform the maintenance mode U600 to initialize the fax control assembly. For details, see the service manual.

**Installer le noyau de ferrite (modèle 230 V).**  
3. Installer le noyau de ferrite (D) dans le câble du connecteur modulaire. **Veiller à enrouler trois fois le cordon autour du noyau de ferrite.** Un écart de 30 mm ± 10 mm entre le noyau de ferrite et la borne est requis.

**Connecter le MFP à la ligne de téléphone.**  
4. Brancher le câble du connecteur modulaire de la ligne de téléphone avec le noyau de ferrite (D) à la borne de la ligne, puis connecter la borne de la ligne à la ligne de téléphone. Pour le modèle 120 V, utiliser le câble du connecteur modulaire (B) fourni.

**Installer le noyau de ferrite (ligne du téléphone séparé).**  
5. Lors de la connexion d'un téléphone séparé au MFP, fixer le noyau de ferrite (D) à la ligne du téléphone séparé. **Veiller à enrouler deux fois le cordon autour du noyau de ferrite.**

**Connecter le MFP au téléphone séparé.**  
6. Brancher la ligne de téléphone séparé avec le noyau de ferrite (D) à la borne de la ligne, puis connecter la borne de la ligne à la ligne de téléphone séparé. Si le MFP n'est pas connecté au téléphone séparé, nettoyer la surface de la borne de téléphone avec de l'alcool et apposer le joint de borne (C).

**Fixer les étiquettes de l'alphabet.**  
7. Nettoyer la surface au-dessus des touches numériques à droite du panneau de commande et y coller les étiquettes de l'alphabet (E).  
8. En Asie et Océanie, utiliser l'étiquette PQRS TUV WXYZ et pas les étiquettes PRS TUV WXY et OPER.

**[Vérification du fonctionnement]**  
1. Brancher le MFP sur une prise d'alimentation et le mettre sous tension.  
2. Exécuter le mode de maintenance U600 pour initialiser l'ensemble de commande de fax. Pour plus de détails, se reporter au manuel d'entretien.

**Instale el núcleo de ferrita (sólo para modelo de 230 V).**  
3. Instale el núcleo de ferrita (D) en el cable conector modular. **Asegúrese de dar tres vueltas al cable a través del núcleo de ferrita.** Deje una separación de 30 mm ± 10 mm entre el núcleo de ferrita y el terminal.

**Conecte el MFP a la línea telefónica.**  
4. Enchufe el cable conector modular de la línea telefónica con el núcleo de ferrita (D) en el terminal de línea, y seguidamente conecte el terminal de línea a la línea telefónica. Para el modelo de 120 V, utilice el cable conector modular (B) suministrado.

**Instale el núcleo de ferrita (línea telefónica del teléfono independiente).**  
5. Al conectar un teléfono separado al MFP, coloque el núcleo de ferrita (D) a la línea telefónica del teléfono separado. **Asegúrese de dar dos vueltas al cable a través del núcleo de ferrita.**

**Conecte el MFP al teléfono separado.**  
6. Enchufe la línea del teléfono separado con el núcleo de ferrita (D) en el terminal de línea, y seguidamente conecte el terminal de línea a la línea del teléfono separado. Si no conecta el MFP a un teléfono separado, limpie la superficie del terminal telefónico con alcohol y pegue el sello del terminal (C).

**Fije las etiquetas de alfabeto.**  
7. Limpie la zona situada encima de las teclas numéricas, en el lado derecho del panel de trabajo, y pegue aquí las etiquetas de alfabeto (E).  
8. En Asia y Oceanía, utilice la etiqueta PQRS TUV WXYZ y no use las PRS TUV WXY ni las OPER.

**[Verifique el funcionamiento]**  
1. Conecte el MFP a un receptáculo de pared y encienda el interruptor principal.  
2. Ejecute el modo de mantenimiento U600 para inicializar el conjunto de control de fax. Para más detalles, lea el manual de servicio.

**Aufsetzen des Ferritkerns (nur 230-V-Modell).**  
3. Ferritkern (D) auf das Modulkabel aufsetzen. **Das Kabel dreimal durch den Ferritkern führen.** Zwischen Ferritkern und Buchse muss ein Abstand von 30 mm ± 10 eingehalten werden.

**Anschließen des MFP an die Telefonleitung.**  
4. Telefonmodulkabel mit dem Ferritkern (D) in die Gerätebuchse einstecken und das Kabel an der Telefondose anschließen. Für das 120-V-Modell ist das mitgelieferte Modulkabel (B) zu verwenden.

**Aufsetzen des Ferritkerns (Telefonleitung mit separatem Telefon).**  
5. Beim Anschließen eines separaten Telefons an den MFP den Ferritkern (D) auf die Telefonleitung des separaten Telefons aufsetzen. **Das Kabel zweimal durch den Ferritkern führen.**

**Anschließen des MFP an das separate Telefon.**  
6. Das Kabel des separaten Telefons mit dem Ferritkern (D) in die Gerätebuchse einstecken und das Kabel an der Dose für das separate Telefon anschließen. Wenn der MFP nicht an das separate Telefon angeschlossen wird, die Oberfläche der Telefonbuchse mit Alkohol abwischen und Verschlusskappe (C) einsetzen.

**Anbringen der Alphabetaufkleber.**  
7. Den Bereich über den Zifferntasten auf der rechten Seite des Bedienfeldes abwischen und die Alphabetaufkleber (E) hier anbringen.  
8. In Asien und Ozeanien den Aufkleber PQRS TUV WXYZ verwenden; nicht die Aufkleber PRS TUV WXY und OPER verwenden.

**[Betriebsprüfung]**  
1. Netzstecker des MFP in eine Steckdose stecken und Hauptschalter einschalten.  
2. Wartungsmodus U600 ausführen, um die Faxsteuerbaugruppe zu initialisieren. Weitere Einzelheiten siehe Wartungsanleitung.

**Montare il nucleo di ferrite (solo per il modello da 230V).**  
3. Montare il nucleo di ferrite (D) sul cavo connettore modulare. **Avere cura di avvolgere tre volte il cavo attorno al nucleo di ferrite.** Lasciare una distanza di 30 mm ± 10 mm tra il nucleo di ferrite e il terminale.

**Collegamento dell'MFP alla linea del telefono.**  
4. Inserire il cavo connettore modulare della linea del telefono con il nucleo di ferrite (D) nel terminale della linea, quindi collegare il terminale della linea alla linea del telefono. Per i modelli da 120 V, utilizzare il cavo connettore modulare (B) in dotazione.

**Montare il nucleo di ferrite (linea telefonica del telefono separato).**  
5. Nel caso in cui si colleghi un telefono separato all'MFP, montare il nucleo di ferrite (D) sulla linea del telefono separato. **Avere cura di avvolgere due volte il cavo attorno al nucleo di ferrite.**

**Collegamento dell'MFP al telefono separato.**  
6. Collegare la linea del telefono separato con il nucleo di ferrite (D) al terminale della linea, quindi collegare il terminale della linea alla linea del telefono separato. Nel caso in cui non si colleghi l'MFP al telefono separato, pulire la superficie del terminale del telefono con dell'alcol e applicare la guarnizione terminale (C).

**Applicazione delle etichette alfabetiche.**  
7. Pulire l'area sopra i tasti numerici sul lato destro del pannello operativo e attaccare qui le etichette alfabetiche (E).  
8. In Asia ed Oceania, utilizzare l'etichetta PQRS TUV WXYZ e non utilizzare le etichette PRS TUV WXY e OPER.

**[Verifica del funzionamento]**  
1. Collegare l'MFP ad una presa di corrente e portare l'interruttore principale su On.  
2. Eseguire il modo di manutenzione U600 per inizializzare il gruppo di controllo fax. Per ulteriori dettagli leggere il manuale d'istruzioni.

**安装铁芯 (仅适用于 230V 型号)。**  
3. 将铁芯 (D) 安装到电话线。**请务必将电话线缠绕铁芯三圈。**在铁芯和端子间保留 30 mm ± 10 mm 的间隙。

**将 MFP 连接到电话线。**  
4. 将缠绕在铁芯 (D) 上的电话线插入电话线端子，然后将电话线端子连接到电话线。对于 120V 型号，请使用附带的电话线 (B)。

**安装铁芯 (其它电话的电话线)。**  
5. 将其它电话连接到 MFP 时，将铁芯 (D) 安装到该部电话的电话线。**请务必将电话线缠绕铁芯两圈。**

**将 MFP 连接到其它电话。**  
6. 将缠绕在铁芯 (D) 上的其它电话线插入电话线端子，然后将电话线端子连接到其它电话线。如果不想将 MFP 连接到其它电话，用酒精擦拭电话端子表面并粘上端子密封 (C)。

**安装英文字母标签。**  
7. 擦拭操作面板右侧数字键上的区域，然后将英文字母标签 (E) 粘在此处。  
8. 在亚洲和大洋州，请使用 PQRS TUV WXYZ 标签，而不要使用 PRS TUV WXY 和 OPER 标签。

**[ 操作确认 ]**  
1. 将 MFP 插入电源插座，打开主电源。  
2. 执行维修保养模式 U600，初始化传真控制组件。有关详细信息，请参见维修手册。

**フェライトコアの取り付け (230V 仕様のみ)**  
3. モジュラーコードにフェライトコア (D) を取り付け。コードをフェライトコアに必ず 3 回通すこと。フェライトコアと端子の間隔を 30mm±10mm あけること。

**電話回線との接続**  
4. ライン端子に、電話回線からのモジュラーコードのフェライトコア (D) が取り付けられている側のプラグを差し込み、電話回線へ接続する。120V 仕様は付属のモジュラーコード (B) を使用すること。

**フェライトコアの取り付け (外付け電話の電話線)**  
5. 外付け電話と MFP 本体を接続する場合、外付け電話からの電話線にフェライトコア (D) を取り付け。コードをフェライトコアに必ず 2 回以上通すこと。

**外付け電話との接続**  
6. TEL 端子に、外付け電話からの電話線のフェライトコア (D) が取り付けられている側のプラグを差し込み、外付け電話と接続する。外付け電話と接続しない場合、TEL 端子周囲をアルコール清掃し、端子シール (C) を貼り付ける。

**アルファベットラベルの貼り付け**  
7. 操作パネル右側のテンキー上側をアルコール清掃し、アルファベットラベル (E) を貼り付ける。  
8. アジア、オセアニアでは「PRS TUV WXY」および「OPER」のラベルを使用せず、「PQRS TUV WXYZ」のラベルを使用すること。

**[ 動作確認 ]**  
1. MFP 本体の電源プラグをコンセントに差し込み、メインスイッチを ON にする。  
2. メンテナンスモード U600 を実行し、FAX 基板を初期化する。詳細はサービスマニュアルを参照のこと。

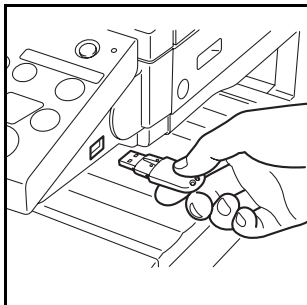
# **INSTALLATION GUIDE FOR Data Security Kit (C)**

## Data Security Kit (C) Installation Guide For MFP Models

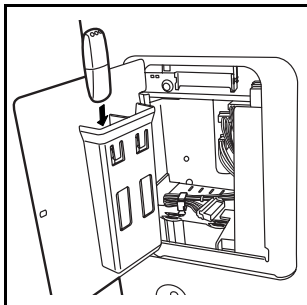
### Guide d'installation du kit de sécurité des données (C) pour les modèles MFP

### Guía de instalación del Kit de seguridad (C) para los modelos MFP

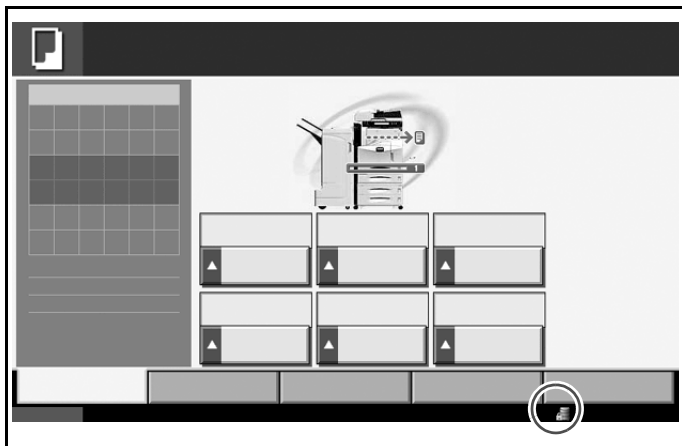
A



C



B



## Français

### Pièces fournies

Clé USB ..... 1

### Précautions avant l'activation

- L'activation du kit de sécurité des données supprime toutes les données enregistrées sur le disque dur par le client. Avant l'activation, vérifier avec le client si les données peuvent être supprimées.
- Veiller à mettre l'interrupteur principal de l'appareil hors tension.

### Procédure d'activation

1. Insérer la clé USB dans l'emplacement de mémoire USB de l'appareil et mettre l'interrupteur principal sous tension. (voir illustration A.)
2. Lorsque l'écran d'accueil s'ouvre, le message *L'installation du Kit de sécurité va commencer.* s'affiche. Appuyer sur [OK].
3. Suivre les instructions à l'écran pour retirer la clé USB et mettre l'interrupteur principal hors tension.
4. Mettre l'interrupteur principal sous tension. L'écran de saisie du code de cryptage s'affiche.  
Demander au client de changer le code de cryptage. L'utilisation de la valeur par défaut du code de cryptage (000000) n'affecte pas la fiabilité de la sécurité des données. Si le client désire changer le code, prier le client d'effectuer les opérations suivantes.  
Appuyer sur [Code de cryptage].  
Appuyer sur [Retour arrière] pour effacer 000000. Entrer le code de cryptage (caractères alphanumériques de 6 chiffres), puis appuyer sur [OK].  
Rappeler au client de bien se souvenir du code de cryptage entré.
5. Appuyer sur [OK]. Le formatage du disque dur commence.
6. Lorsque le formatage est terminé, suivre les instructions à l'écran pour mettre l'interrupteur principal hors, puis sous tension.
7. Lorsque l'écran d'accueil s'ouvre, vérifier qu'une icône du disque dur ( ) s'affiche dans l'angle inférieur droit de l'écran. (voir illustration B.)
8. Laisser la clé USB utilisée dans l'emplacement correspondant situé au dos du couvercle central gauche à l'arrière de l'appareil. (voir illustration C.)

## English

### Supplied Parts

USB Key ..... 1

### Precautions before Activating

- Activating the Data Security Kit will delete all data stored in the hard disk by the customer. Before activating, check with the customer if the data can be deleted.
- Be sure that the Main Power Switch of the machine is turned off.

### Activating Procedure

1. Insert the USB Key into the USB Memory Slot of the machine and turn the Main Power Switch on. (See Illustration A.)
2. After the opening screen is displayed, the *Activating security function.* message is displayed. Press [OK].
3. Follow the onscreen instructions to remove the USB Key and turn the Main Power Switch off.
4. Turn the Main Power Switch on. The encryption code entry screen is displayed. Ask the customer to change the encryption code. Using the default value of the encryption code (000000) will not affect the data security reliability. If the customer desires to change the code, lead the customer to follow the steps below.  
Press [Encryption Code].  
Press [Back Space] to delete 000000. Enter the encryption code (6-digit alphanumeric characters) and then press [OK].  
Remind the customer not to forget the encryption code entered.
5. Press [OK]. Hard disk formatting begins.
6. When formatting finishes, follow the onscreen instructions to turn the Main Power Switch off and on again.
7. After the opening screen is displayed, confirm that a hard disk icon ( ) is shown in the lower right corner of the screen. (See Illustration B.)
8. Keep the used USB Key in the USB Key Box on the back side of the left-center cover that is attached to the back side of the machine. (See Illustration C.)

## Español

### Piezas suministradas

Llave USB ..... 1

### Precauciones antes de la activación

- Al activar el kit de seguridad, se eliminarán todos los datos que el cliente tenga almacenados en el disco duro. Antes de iniciar la activación, pida al cliente que confirme que los datos se pueden eliminar.
- Asegúrese de que el interruptor principal esté apagado.

### Procedimiento de activación

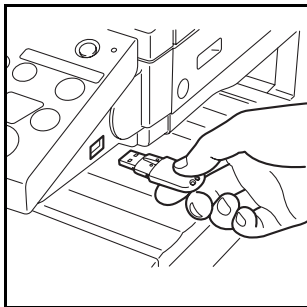
1. Inserte la llave USB en la ranura de memoria USB de la máquina y encienda el interruptor principal. (Consulte la ilustración A.)
2. Después de la pantalla inicial, aparecerá el mensaje *Comenzará instalación de kit de seguridad.* Pulse [OK].
3. Siga las instrucciones que aparecen en pantalla para retirar la llave USB y apague el interruptor principal.
4. Encienda el interruptor principal. Aparecerá la pantalla de introducción del código de cifrado.  
Pida al cliente que cambie el código de cifrado. Si usa el valor predeterminado del código de cifrado (000000), la fiabilidad de la seguridad de los datos no se verá afectada. Si el cliente desea cambiar el código, avise al cliente que debe seguir los pasos a continuación.  
Pulse [Encriptación Código].  
Pulse [Retroceso] para borrar 000000. Introduzca el código de cifrado (6 caracteres alfanuméricos) y pulse [OK].  
Advierta al cliente que no debe olvidar el código de cifrado introducido.
5. Pulse [OK]. Se inicia el formateo del disco duro.
6. Cuando termine el formateo, siga las instrucciones que aparecen en pantalla para apagar y encender el interruptor principal.
7. Después de que aparezca la pantalla inicial, compruebe que se muestra un icono de disco duro ( ) en el ángulo superior derecho de la pantalla. (Consulte la ilustración B.)
8. Conserve la llave USB utilizada en su receptáculo, situado en el lado posterior de la cubierta central izquierda instalada en la parte de atrás de la máquina. (Consulte la ilustración C.)

## Datensicherheits-Kit (C) – Installationsanleitung für MFP-Modelle

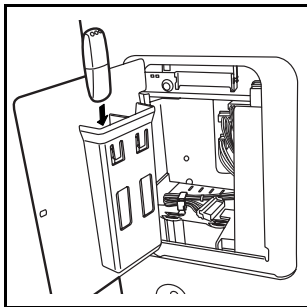
### Kit Sicurezza Dati (C) - Guida all'installazione per i modelli MFP

### Data Security Kit (C) 複合機用設置手順書

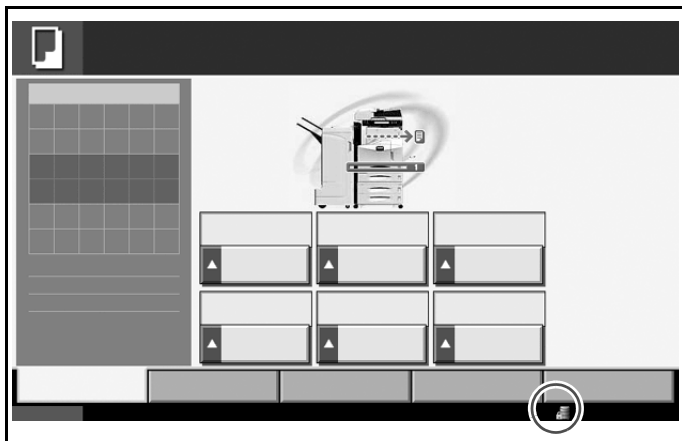
A



C



B



## Italiano

### Componenti forniti

Chiave USB ..... 1

### Precauzioni prima dell'attivazione

- Attivando il Kit Sicurezza Dati tutti i dati memorizzati dal cliente sul disco rigido verranno eliminati. Prima di iniziare l'attivazione, verificare con il cliente che i dati possano essere eliminati.
- Accertarsi che l'interruttore di alimentazione principale della macchina sia spento.

### Procedura di attivazione

1. Inserire la chiave USB nel relativo slot di memoria della macchina e accendere l'interruttore di alimentazione principale. (vedere Figura A.)
2. Una volta visualizzata la schermata iniziale, viene visualizzato il messaggio *Verrà avviata l'installazione del Kit sicurezza*. Premere [OK].
3. Seguire le istruzioni sullo schermo per la rimozione della chiave USB e spegnere l'interruttore di alimentazione principale.
4. Accendere l'interruttore di alimentazione principale. Viene visualizzata la schermata per l'immissione della chiave di crittografia. Chiedere al cliente di modificare la chiave di crittografia. L'utilizzo del valore predefinito della chiave di crittografia (000000) non influisce sull'affidabilità della sicurezza dati. Se il cliente desidera modificare la chiave di crittografia, è necessario che esegua i passi descritti qui in basso.  
Premere [Chiave di crittografia]  
Premere [Backspace] per eliminare 000000. Immettere la chiave di crittografia (6 caratteri alfanumerici) e poi premere [OK].  
Ricordare al cliente di non dimenticare la chiave di crittografia immessa.
5. Premere [OK]. La formattazione del disco rigido ha inizio.
6. Al termine della formattazione, seguire le istruzioni sullo schermo per spegnere e riaccendere l'interruttore di alimentazione principale.
7. Una volta aperta la schermata iniziale, verificare che un'icona del disco rigido (📀) sia visualizzata nell'angolo inferiore destro dello schermo. (vedere Figura B.)
8. Conservare la chiave USB nell'apposito scomparto situato sul retro della copertura centrale sinistra, fissata alla parte posteriore della macchina. (vedere Figura C.)

## Deutsch

### Gelieferte Teile

USB-Schlüssel ..... 1

### Vorsichtsmaßnahmen vor der Aktivierung

- Durch Aktivieren des Datensicherheits-Kits werden alle Daten gelöscht, die vom Kunden auf der Festplatte gespeichert wurden. Fragen Sie vor der Aktivierung den Kunden, ob die Daten gelöscht werden können.
- Stellen Sie sicher, dass der Netzschalter des Geräts ausgeschaltet ist.

### Aktivierungsverfahren

1. Stecken Sie den USB-Schlüssel in den USB-Speichersteckplatz des Geräts ein und schalten Sie den Netzschalter ein. (Siehe Abbildung A.)
2. Zuerst wird der Eröffnungsbildschirm angezeigt, dann wird die Nachricht *Sicherheits-Kit wird installiert* angezeigt. Drücken Sie [OK].
3. Folgen Sie den Anweisungen, die auf dem Bildschirm angezeigt werden, um den USB-Schlüssel zu entfernen, und schalten Sie den Netzschalter aus.
4. Schalten Sie den Netzschalter ein. Das Dialogfeld zur Eingabe des Verschlüsselungscodes wird angezeigt. Bitten Sie den Kunden, den Verschlüsselungscode zu ändern. Die Verwendung des Standardwertes für den Verschlüsselungscode (000000) hat keinen Einfluss auf die Zuverlässigkeit der Datensicherheit. Falls der Kunde den Code ändern möchte, weisen Sie ihn an, die folgenden Schritte auszuführen.

Drücken Sie [Verschlüssel.- code].

Drücken Sie [Rücktaste], um 000000 zu löschen. Geben Sie den Verschlüsselungscode (6-stellige alphanumerische Zeichenfolge) ein, und drücken Sie [OK].

Erinnern Sie den Kunden daran, dass er den eingegebenen Verschlüsselungscode nicht vergessen darf.

5. Drücken Sie [OK]. Die Festplatte wird formatiert.
6. Nach der Formatierung werden Sie auf dem Bildschirm aufgefordert, den Netzschalter aus und wieder einzuschalten.
7. Wenn der Eröffnungsbildschirm angezeigt wird, stellen Sie sicher, dass ein Festplattensymbol (📀) unten rechts auf dem Bildschirm angezeigt wird. (Siehe Abbildung B.)
8. Bewahren Sie den USB-Schlüssel in der USB-Schlüsselpackung hinten in der linken mittleren Abdeckung auf, die sich hinten am Gerät befindet. (Siehe Abbildung C.)

## 日本語

### 付属部品

USB キー ..... 1

### 導入前の注意事項について

- データセキュリティキットを導入すると、お客様がハードディスクに保存したデータは全て削除される。お客様に削除して問題ないことを確認してから、導入作業を行う。
- 機械の電源が切れていることを確認してから、手順を行う。

### 導入手順

1. 機械の USB メモリスロットに USB キーを挿入し、主電源スイッチを入れる。(イラスト A 参照)
2. オープニング画面が表示されたあと、「**セキュリティ機能を起動します。**」が表示されるので、[OK]を押す。
3. 画面の指示にしたがって、USB キーを抜き、主電源スイッチを切る。
4. 主電源スイッチを入れる。暗号化コードを入力する画面が表示される。暗号化コードは工場出荷時 (000000) のまま運用してもセキュリティ上問題ない。お客様が変更を希望された場合は、以下の手順で変更してもらう。  
[暗号化コード]を押す。  
[バックスペース]を押して、「000000」を消してから、暗号化コード (英数字 6 文字) を入力して、[OK]を押す。  
お客様に、暗号化コードを忘れないよう注意を促すこと。
5. [OK]を押す。ハードディスクのフォーマットが開始される。
6. フォーマットが終了したら、画面の指示にしたがって、主電源スイッチを切る。
7. 主電源スイッチを入れる。オープニング画面が表示されたあと、画面右下 (イラスト B 参照) にハードディスクアイコン (📀) が表示されているか確認する。
8. 使用後の USB キーは、本体後側のカバー (イラスト C 参照) 裏側の USB キーBOX に収納する。